SYSTEM BUCKYDIAGNOST TH2/TF

LIST OF DOCUMENTATION IN THIS BINDER:

- ⊗ SUBSYSTEM manual BuckyDiagnost TH2/TF
- ○ ACL4
- ○ bucky unit
- ○ measuring chambers
- ○ grid data sheet
- ○ second table control

Note: ⊗ indicates document present

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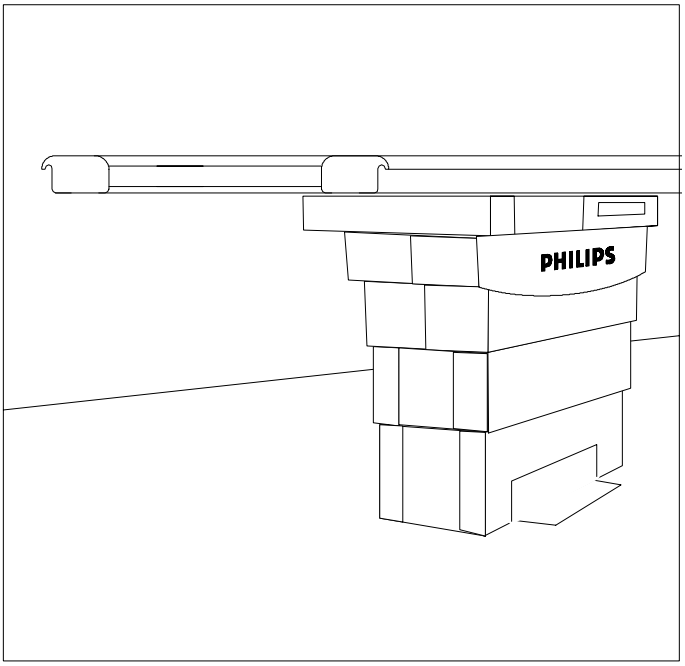
SERVICE MANUAL
704
SUBSYSTEM

BuckyDiagnost TH2 / TF

9890 010 06502



DMC Hamburg

Printed in Hamburg, Germany

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SERVICE MANUAL - SUBSYSTEM

BuckyDiagnost TH2 / TF

Author: M. Hasche

Type No : 9890 010 06502

In case there are any questions concerning this manual,
please send this LOPAD via fax to 49/(0)40/5078 2481

File: BD_TH2_TF_08772_AF

List of pages and drawings (LOPAD)

Manual Order No: 4512 984 08772
released: 09/2004

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1. Purpose of the manual

This documentation is valid for BuckyDiagnost TH2 / TF.

The table BuckyDiagnost TH2 / TF is part of the BuckyDiagnost family and can be installed together with the ceiling suspension BuckyDiagnost CS resp. the floor stand BuckyDiagnost FS and the X-ray generator OPTIMUS RAD / OPTIMUS 30 Single phase.

The table BuckyDiagnost TH2 is characterized by:

- height adjustable tablebase
- floating tabletop

The table BuckyDiagnost TF characterized by:

- fixed height tablebase
- floating tabletop

2. Items supplied

BuckyDiagnost TH2

- Table with floating table top, 750 mm x 2400 mm, kevlar
- Height sensor
- Manual bucky unit, nonsensing
- Grid for bucky unit
- AMPLIMAT chamber

Options:

- Manual bucky unit with format sensing
- Automatic cassette loader (ACL4)
- Tomo 2 device
- Footswitch locking device
- Second table control
- Wider table top 850 mm x 2400 mm
- Shorter table top 750 mm x 2000 mm

BuckyDiagnost TF

- Table with floating tabletop, 750 mm x 2400 mm, kevlar
- Manual bucky unit, nonsensing
- Grid for bucky unit
- AMPLIMAT chamber

Options:

- Manual bucky unit with format sensing
- Automatic cassette loader (ACL4)
- Tomo 2 device
- Wider table top 850 mm x 2400 mm
- Shorter table top 750 mm x 2000 mm

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3. Compatibility

- Bucky unit non format sensing	9848 500 2030x
- Bucky unit with format sensing	9804 609 6030x
- Bucky unit with format sensing	9848 500 2040x
- Automatic cassette loader (ACL4)	9848 600 0202x
- Tabletop standard	9890 010 0219x
- Tabletop aramid	9890 010 0220x
- Tomo 2 device BuckyDiagnost TH	9848 600 0256x
- System control BuckyDiagnost	9848 500 2270x
- Height sensor for BuckyDiagnost TH	9848 500 2260x
- Grid 36/8 FO 100	9860 834 9010x
- Grid 36/8 FO 110	9896 010 2608x
- Grid 36/8 FO 140	9896 010 2609x
- Grid 36/12 FO 100	9860 836 9010x
- Grid 36/12 FO 110	9896 010 2600x
- Grid 36/12 FO 140	9896 010 2607x
- Grid 36/12 FO 180	9896 010 2604x
- Grid 40/12 FO 100	9860 846 9010x
- Grid 40/12 FO 110	9860 846 9011x
- Amplimat chamber	9890 000 0161x
- BuckyDiagnost CS	9890 xxx xxxxx
- BuckyDiagnost FS	9890 xxx xxxxx

Options:

- Footswitch locking device	9890 010 02712
- Second table control	9890 010 02731

Accessories:

- Adjustable head clamp	9804 662 33009
- Pair of handgrips	9804 662 43009
- Ratchet compressor	9804 666 22009
- Symm. ratchet compressor	9804 666 22109
- Lateral cassette holder	9804 666 32009
- Cassette holder, hor. beam	9804 668 10009
- Pair of leg supports	9804 668 50009
- Infusion bottle holder	9804 669 10009
- Pair adj. positioners	9804 669 20009
- Park frame for accessories	9804 669 30009

Upgrades:

- Upgrade f. bucky brake TH	9890 010 02881
- Upgrade sec. table contr. TH	9890 010 02901
- Upgrade footswitch look	9890 010 02912
- Upgrade kit tracking	9890 010 80191
- Upgrade kit high load	9890 010 81251
- Upgrade kit key switch for bucky TH	4512 130 82901

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4. Technical data

4.1. Mechanical data

- Mechanical dimensions BuckyDiagnost TH2 / TF see 2Z-1.1 and 2Z-1.2

4.2. Environmental data

	Operation	**Stock / Transport**
Temperature in °**Celcius**	10 / + 40	- 25 / + 70
Temperature in °**Celcius** / **Hour**	N / A	N / A
Humidity in % (non-condensing)	20 / 80	5 / 95
Gradient in % / **hour**	N / A	N / A
Vibrations / Shock range in **Hz**	5 - 500	5 - 500
Vibrations / Shock amplitude in **mm**	N / A	N / A
Vibrations / Shock acceleration in **g**	0.25 peak	1.0 peak
Shock acceleration in **g**	5 peak	30 peak
Shock pulse duration in **msec**	11	11
Air pressure in **Hecto-pascal**	700 / 1100	700 / 1100

Acoustic noise level : N / A
Air cooling : N / A
EMC : IEC 950

4.3. Electrical data

Equipment related:

Power required : max. 900 VA
Nominal voltages : 230 VAC
Supply configurations : 230 VAC
Voltage variation : N/A
Voltage impulse : N/A
Voltage surge : N/A
Voltage sag : N/A
Static frequency variation : 50 or 60 Hz ± 1 Hz
Dynamic frequeny variation : N/A
Harmonic voltage distortion (single, total) : N/A
Neutral to ground voltage variation : N/A
Neutral to ground volate impulse : N/A
Nominal current : 6.0 A / 0.6 A (TH2 / TF)
Nominal frequency : 50 Hz / 60 Hz

Heat emission
standby : N/A
in operation : N/A

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4.4. Tools / Material required

Pre-installation

Delivered	:	N/A
To be ordered	:	N/A
To be arranged locally	:	- TC 129, Tool kit, standard - Power tools (hammer drill with 12 mm carbid drills)

Installation

Delivered	:	Set of standard fixing material Wooden table transport bars
To be ordered	:	N/A
To be arranged locally	:	- TC 129, Tool kit, standard - Spirit level - TC 092, Notebook, service PC - TC 003, Service PC cable kit - TC 091, Multimeter - Service software X-Scope 1.4.2 or higher - Power tools (hammer drill with 12 mm carbid drills) - Measuring tape, 10 m

4.5. Network data

N/A

4.6. Remote service data

N/A

4.7. Transport data

For information about transport data refer to the corresponding PRD.

4.8. Pre-installation requirements

- Room layout (floor fixing) (Refer to PRD)

The preliminary planning work is restricted to the selection of a suitable room. The outfit of the room has to be equipped with the conduits and pipes required and, in cases where the loading capacity of the bearing area (380 kg on 2 x ≅ 500 cm^2) is insufficient, the floor preparation for the table.

Where DIN specification are not applicable the minimum wall clearances should be determined in compliance with the concerning national regulations.

4.9. Movements

- Table height (see 2Z-1.1 and 2Z-1.2)
- Tabletop (see 2Z-1.1 and 2Z-1.2)

4.10. Pre-installation data

For information about the pre-installation data refer to PRD 'Product planning' BuckyDiagnost TH2 / TF.

5. Saftey information

N/A

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6. Compliance information

N/A

7. Equipment identification and labelling

N/A

8. Abbreviations and definitions

Abbreviation	Explanation
CS	Ceiling Suspension
FS	Floor Stand
PMS	Philips Medical Systems
POST	Power On Self Test
PRD	Product Reference Data
SID	Source Image Distance
TC	Tool Code
TF	Table Fix
TH	Table Height adjustable
VE	Vertical
VR	Vertical Radiography
VT	Vertical Tiltable

9. Manual history

Date	Version	Name	Reason of changes
26.08.03	1.0	M. Hasche	Introduction of TF
13.05.04		M. Hasche	Update

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Installation

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1. Unpack, transport, mount

1.1. Box dimensions

Crate / Box Tablebase TH2	**Dimension (mm)**			**Weight (Newton)** (10 N = 1 Kg)
	Length	Width	Height	
Packed	1350	950	1000	2500
Installed	Refer to mechanical dimension drawings			2040

Crate / Box Tablebase TH2 incl. tomo	**Dimension (mm)**			**Weight (Newton)** (10 N = 1 Kg)
	Length	Width	Height	
Packed	1350	950	1000	2620
Installed	Refer to mechanical dimension drawings			2160

Crate / Box Tablebase TF	**Dimension (mm)**			**Weight (Newton)** (10 N = 1 Kg)
	Length	Width	Height	
Packed	1360	980	1120	max.1740
Installed	Refer to mechanical dimension drawings			max. 1300

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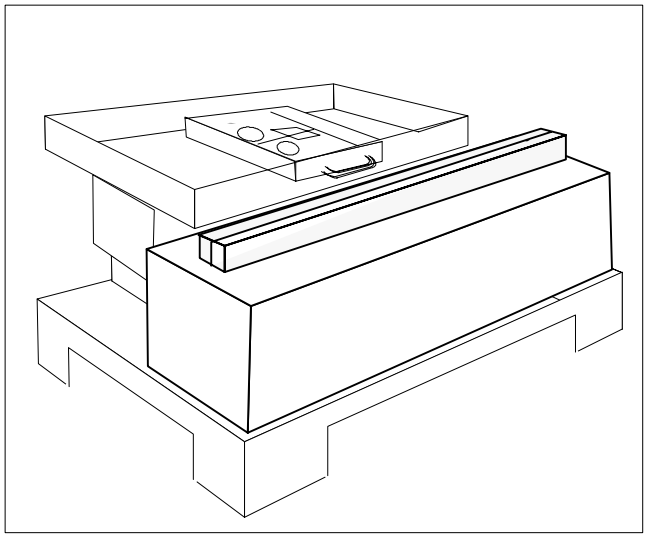
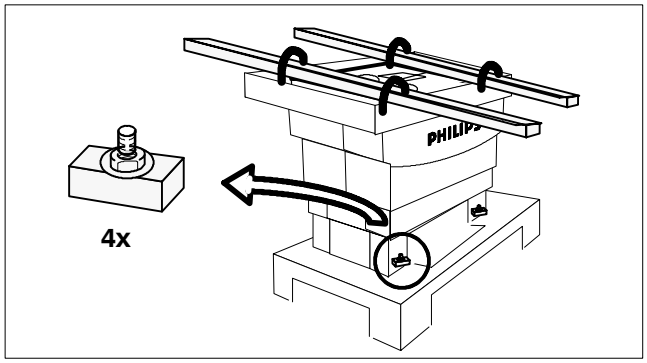
1.2. Unpack



- Remove the boxes and the wooden bars from the pallet. The boxes include the table covers.



- Loosen the nuts **4x** of the screwings at the front and rear side.
  - Remove the nuts.
  - Remove the washers.
  - Remove the fixing blocks.

- Insert the wooden bars into the loops.
- Lift up the table base with four persons and remove it from the pallet.

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2. Floor fixation of BuckyDiagnost TH2/TF

Determine the working position of the table.

Note
Refer to PRD room layout or local planning data and use the drilling template from the System Manual Installation

- Mark the four fixing points at the floor.
- Drill ∅12 mm holes in the middle of the marked area about 100 mm deep.
- Insert the four anchor dowels into the holes.
- Fix the anchor dowels.
- Lift the table and place it in its working position.

3. Height adjustment for installation (TH2)

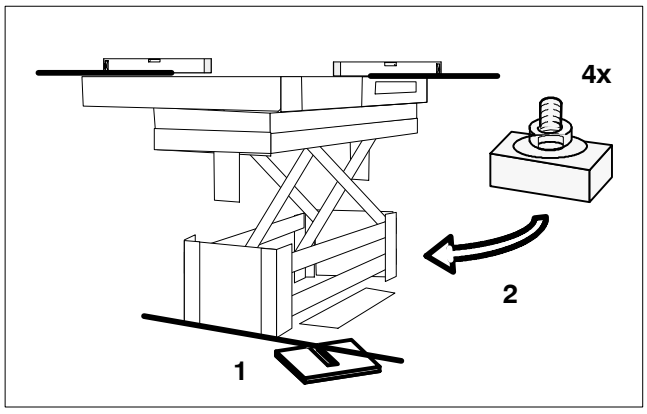
- Connect cable **MEX** from table to the mains of 220 VAC to move the table upwards into a better working position. Also connect protection lead.
- Press foot switch to move the table upwards.
- Press foot switch to move the table downwards.

Warning!
If the table does not move downwards, press on the table top with 20 kp. Do not adjust the collision switch! The table automatically stops at the middle position.

- Disconnect **MEX** from mains.

4. Alignment for BuckyDiagnost TH2 /TF

- Level the table in both directions by using a spirit level or by using the laser alignment tool, use the spacer if necessary **(1)**.
- Insert the fixing block **(2, 4x)**, the special washer and fasten the nut with a spanner.



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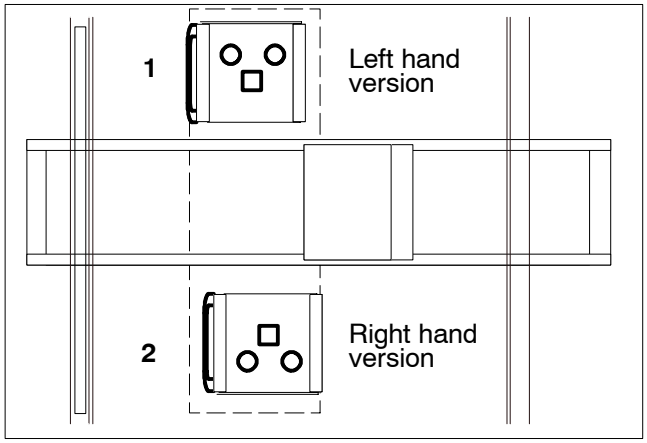
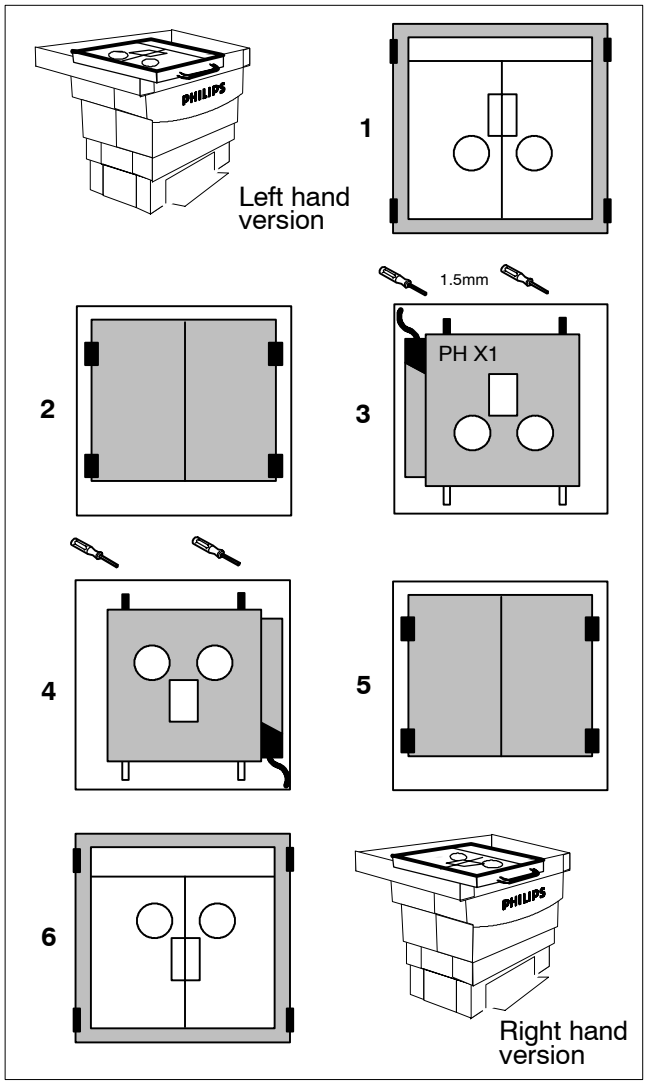
5. Change position of the AMPLIMAT chamber from left to right side

A manipulation of the connector at the AMPLIMAT chamber is necessary, if the position of the BuckyDiagnost TH2 / TF must be changed from left **(1)** to right **(2)** side.



- Remove the table top by removing the four screws **(1)**.
- Mark the center line of the table top to the frame (both sides).
- Remove the table top.
- Dismantle the anti-scatter grid by unscrewing the four metal holders **(2**).
- Remove the anti-scatter grid.
- Dismantle the AMPLIMAT chamber by loosening the two grub screws **(3)**.
- The wire assignment on the connector **PH X1** must be changed crosswise, the violett wire on **X1:1** with the black wire on **X1:3**.
- Place the measuring chamber in the new position **(4)**.
- Tighten the measuring chamber with the two grub screws.
- Re-install the anti-scatter grid **(5)**.
- Tighten the anti-scatter grid.
- Re-install the table cover in new position **(6**).
- Tighten the table cover.



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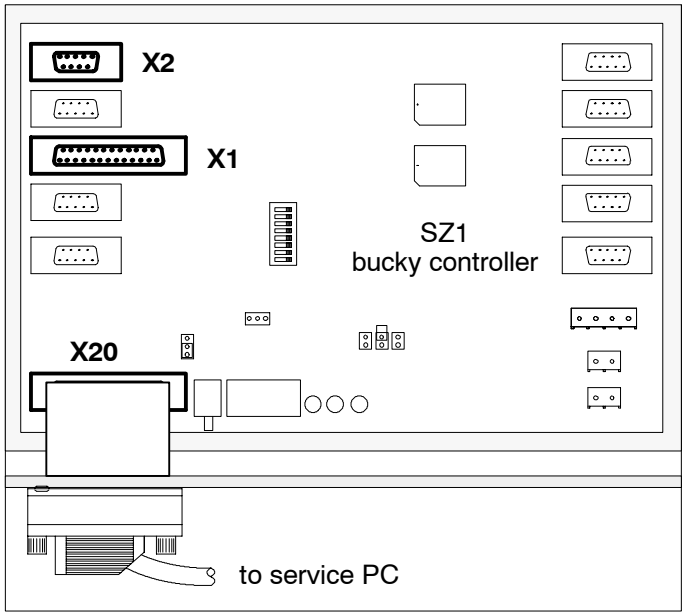
6. Electrical connection

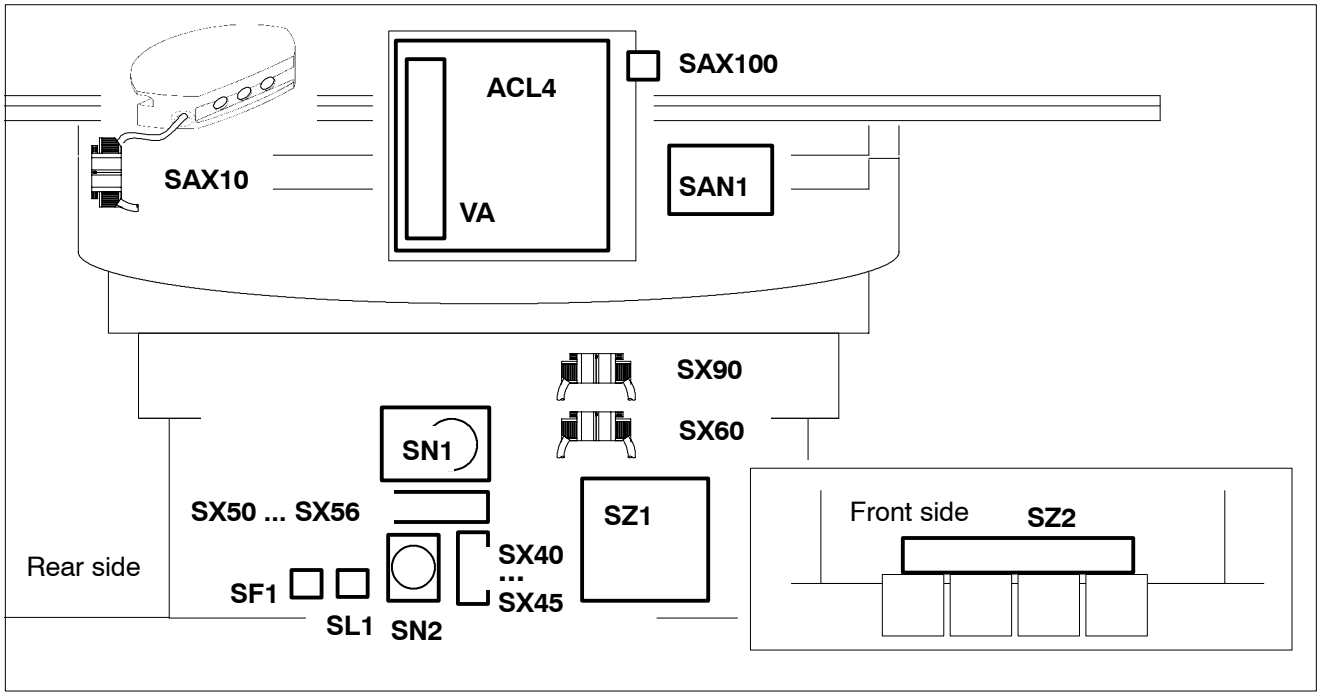
BuckyDiagnost TH2/TF will be supplied with sets of cables including plugs connected one side.

- Install the cables and connect them as named in the corresponding SMI, Section 8, 'Cabling and earthing', connection diagrams.

6.1. Connection location at the BuckyDiagnost TH2 / TF

Power supply 230 VAC	**SX50 ... SX56**
Power supply 24 ... 30 VDC	**SX40 ... SX45**
Power supply TH	**SN1**
Power supply ACL4	**SN2**
bucky controller	**SZ1**
CAN bus in	**SZ1X2**
Signal bus	**SZ1X1**
Connection to PC (X-Scope)	**X20**
Amplimat to generator	**SX60**
Tomo CAN bus	**SX90**
Second table control, option	**SAX10**
bucky brake, option	**SAX100**
Motor amplifier board	**SZ2**
Tomo drive and control	**SAN1**





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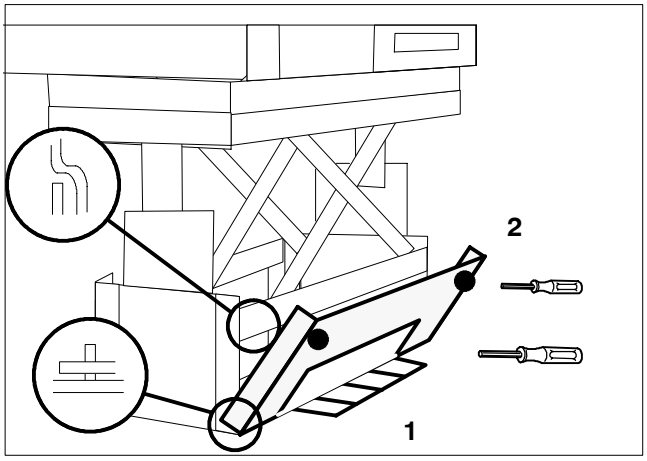
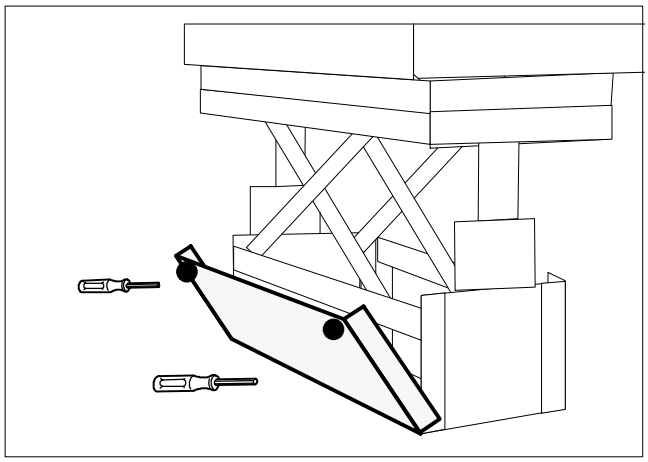
7. Installation of the table covers

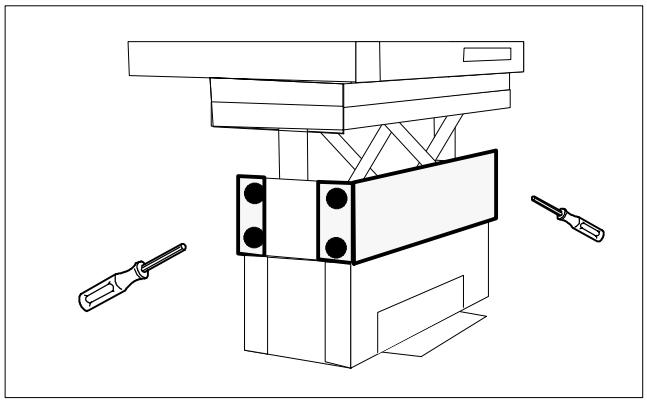
- Raise the table to its uppermost position (only TH2). Press foot switch to move the table upwards.
- Lift up the foot switch assembly **(1)**.
- Fit the lower front cover **(2)** into pins and screw it on.
- Connect the earth wire **SX72**, **SX73** to the lower front cover.



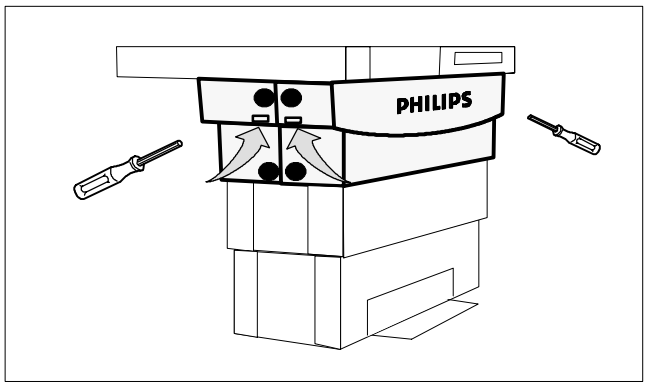
- Fit the lower rear cover into pins and screw it on.
- Connect the earth wire **SX74** to the lower rear cover.



- Insert the middle side covers at both sides of the table.
- Install both middle covers at the front and rear side. The covers are equal.
- Insert the screws. Do not fasten the screws completely.



- Install the upper covers at the front and the rear side. The covers are equal. Do not fasten the screws completely.
- Adjust the covers.
- Fasten all screws.
- Move the table up and down and check whether the covers slide without any abrasion and noise (only TH2).



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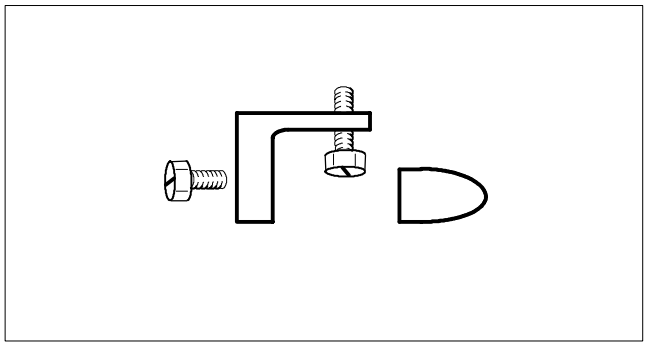
8. Installation of the tabletop for BuckyDiagnost TH2/TF

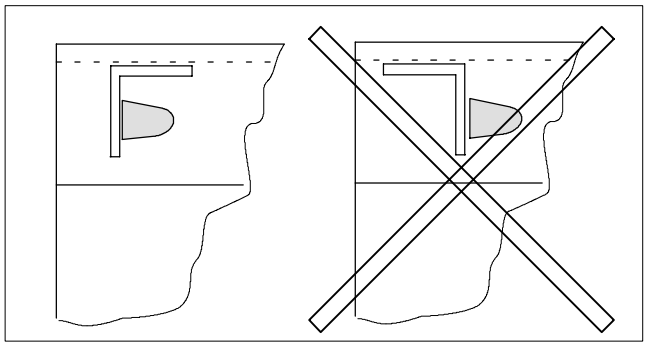
- Remove the tabletop from the transport box.
- Check whether the ball bearings are adjusted correctly to the tabletop. If not, remove the tabletop and adjust the eccentric bearings.

Installation of the end stoppers:

- Remove the parabolic buffer from the stop angle to install the stop assembly.



- Screw the stop angle to the table rail (respect the “right direction”).
- Screw the parabolic buffer to the stop angle.



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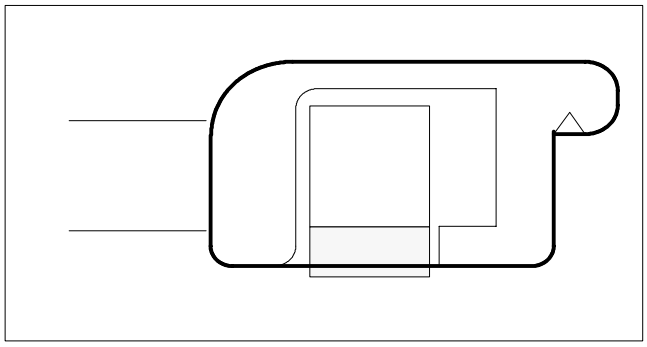
9. Installation of the table end covers

The cover profile prevents injury by sharp edges.

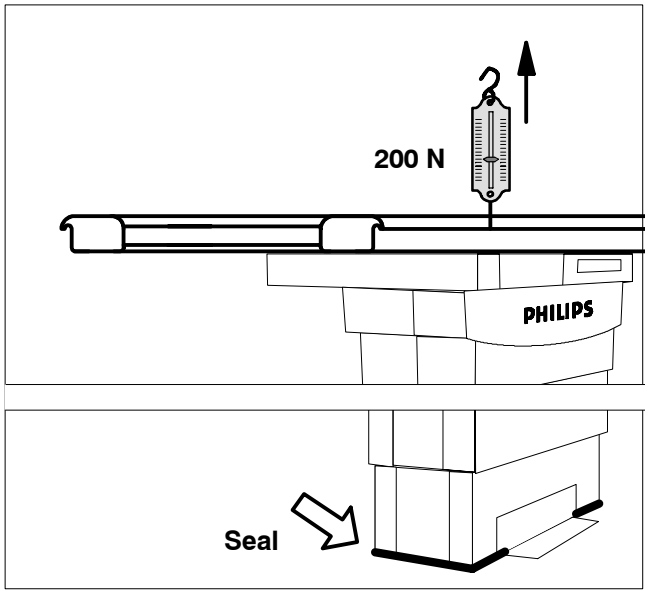
- Install **(4x)** new end covers to the four table top edges.
- Check the level of the table in both directions with a spirit level.
  - If necessary, use linings.



10. Final work

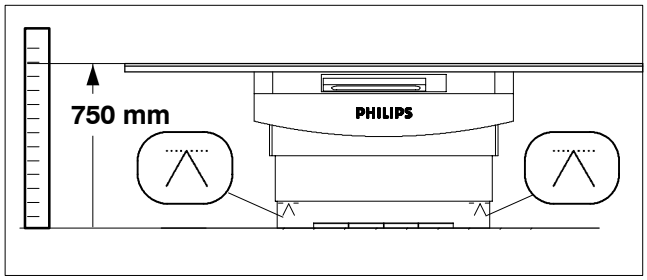
10.1. Final work for BuckyDiagnost TH2

- Check all table functions
  - table movement up- and downwards switched by the foot switches
  - table movement up- and downwards switched by the second table control (optional)
  - function of longitudinal and transverse brakes.
- Check the collision switch.
- Move the tabletop downwards.
  Press foot switch to move the table downwards.



If the table does not move downwards press on table top with 200 N.
Do not adjust the collision switch (SS10)!
This switch is factory adjusted.

- Seal the base of the table with silicon.
- Clean all covers with a mildly cleaner like soapsuds.
- Move the table to the ”preferred table height position” (about 750 mm), the table will stop automatically.
- Place the labels so that the dotted line is in line with lower edge of the mid cover.



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10.2. Final work for BuckyDiagnost TF

- Check the function of longitudinal and transverse brakes.
- Seal the base of the table with silicon.
- Clean all covers with a mildly cleaner like soapsuds.

11. Labels

- Check the labelling (see 2Z–10).

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FAULTFINDING

TEXT

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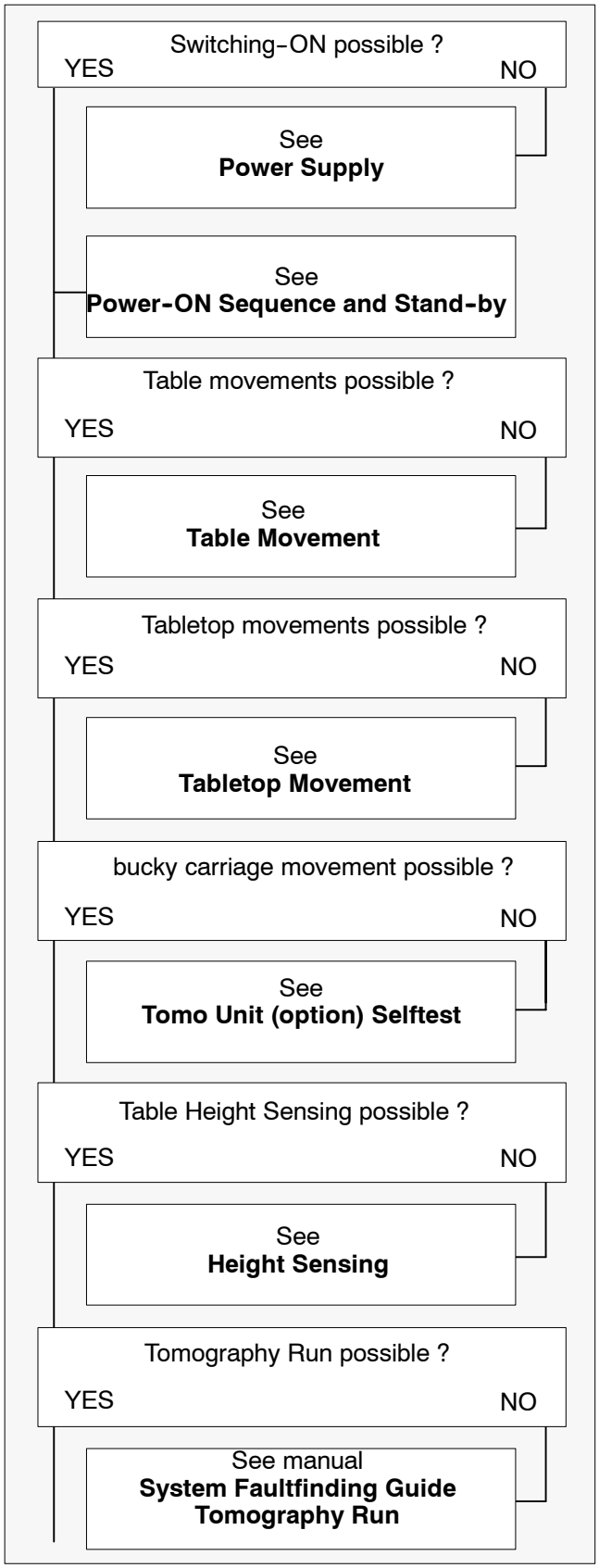
1. Faultfinding guide

Convention

Switch is closed = **ON**
Switch is open = **OFF**

LED / lamp illuminates = **ON**
LED / lamp does not illuminate = **OFF**



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2. Power supply of BuckyDiagnost TH2 / TF with ACL4 and tomo

Mains power of 220 VAC for

table via F1, L1 to X50 ...X56

table lift motor **SNV**

PCB power supply **SN1** for
table control **SZ2**

bucky carriage, magnetic brake **VAC**

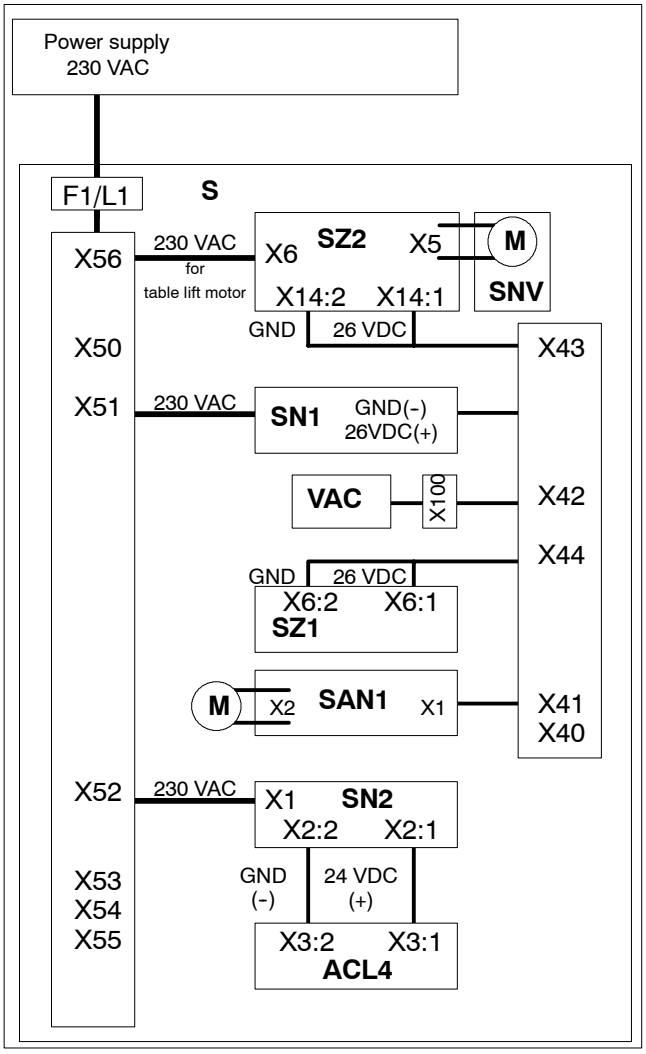
bucky controller **SZ1**

table tomo drive & control **SAN1**

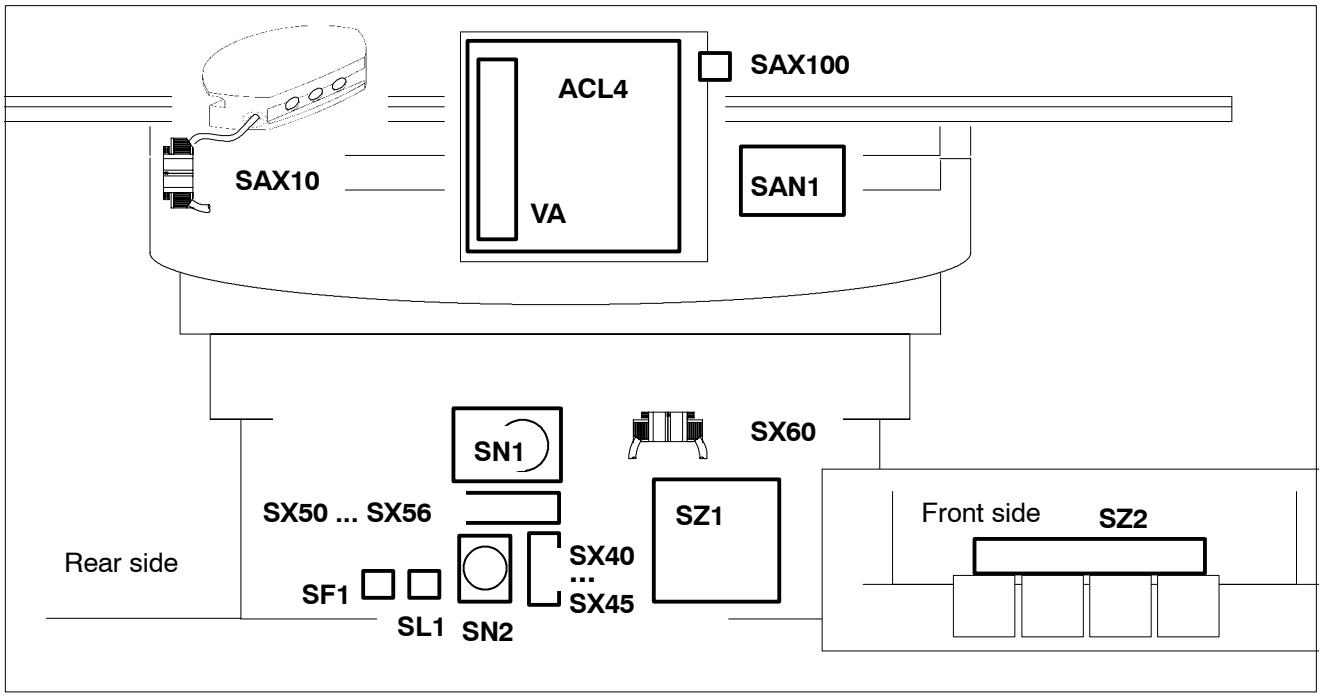
ACL4

PCB power supply for **SN2** for

automatic cassette loader **ACL4**



2.1. Location of electrical components



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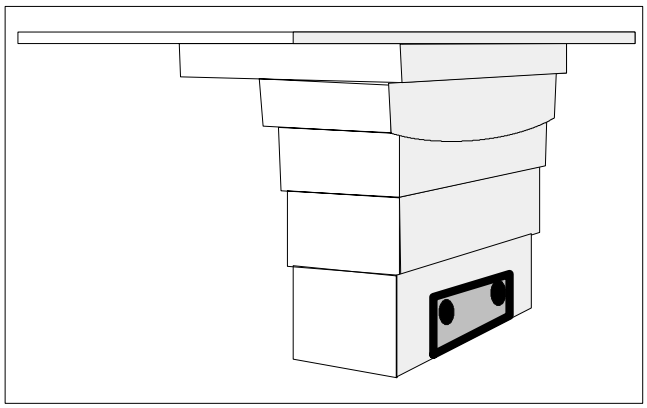
3. Power-ON sequence and stand-by

The BuckyDiagnost system runs through a selftest after power-on.

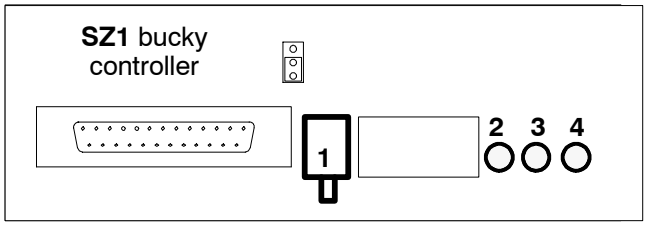
- Switch **ON** the system.

3.1. BuckyDiagnost TH2/TF selftest

- Raise the table to its uppermost position. Press foot switch to move the table upwards. The table will stop automatically (only TH2).
- Unscrew the service-cover at the rear side, open it for observation.



- Press reset switch **(1)** to re-start the bucky controller.



The red LED **(2)** (= bucky controller is not ready) lights up till the selftest is ended successful.
The yellow LED **(3)** (= CAN bus is working) flashes after successful selftest.
The green LED **(4)** (= bucky controller is ready) lights up after successful selftest.

- If the board **SZ1** fails, replace it. Configure the new board via program X-Scope.

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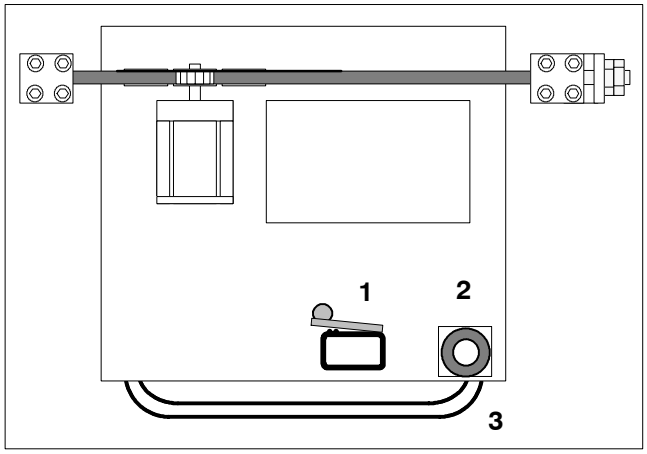
3.2. Tomo unit (option) selftest

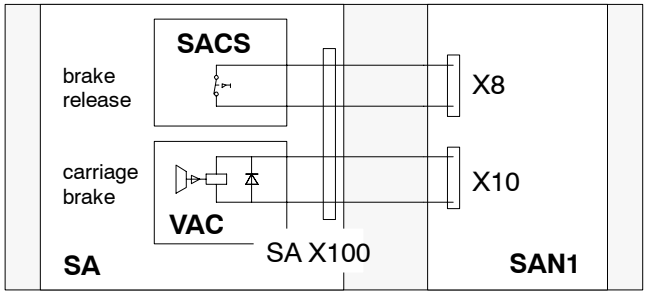
During the initialization phase the bucky carriage will move to its tomo center position. Afterwards the bucky carriage moves to one side then to the other side and will stop in the middle position.



If tomo unit seftest fails:

- Check brake release switch **(1)** and magnetic brake **(2)** on the bucky carriage.

The brake release switch is currently closed and will be mechanical opened via the grip **(3)**.



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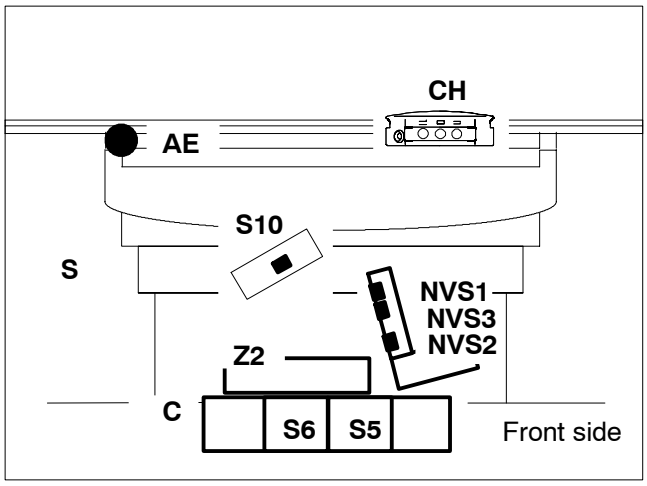
4. Table movement of BuckyDiagnost TH2

4.1. Table switches

- Check function of the footswitch lock **S AE**. Pressed switch = footswitches without function
- Move the tabletop into the working position via footswitches **SC S6, S5** or via the optional second table control **SCH**

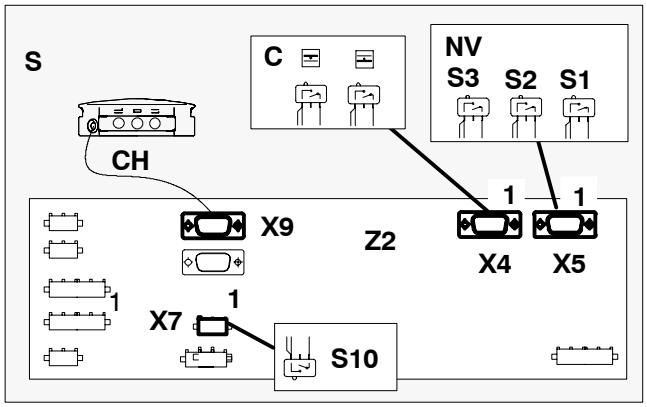


If tabletop does not move upwards

- Check closed 900 mm-switch **SNVS1** at **SZ2 X5:6/7** (24VDC) via 750 mm-switch **SNVS3** at **SZ2 X5:3/4**
- Check footswitch **S5** for upwards movement at **SZ2 X4**
- Check optional handswitch **SCH** for upwards movement at **SZ2 X9**

If tabletop does not move downwards

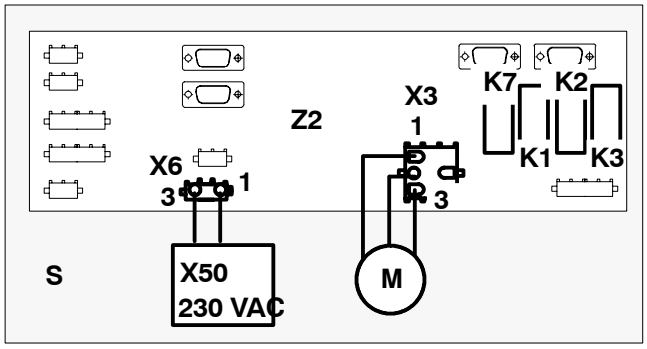
- Check closed safety switch **SS10** at **SZ2 X7:2/1** (24 VDC) via closed 500 mm-switch **SNVS2** at **SZ2 X5:8/9** via 750 mm-switch **SNVS3** at **SZ2 X5:3/4**
- Check footswitch **S6** for downwards movement at **SZ2 X4**
- Check optional handswitch **SCH** for downwards movement at **SZ2 X9**



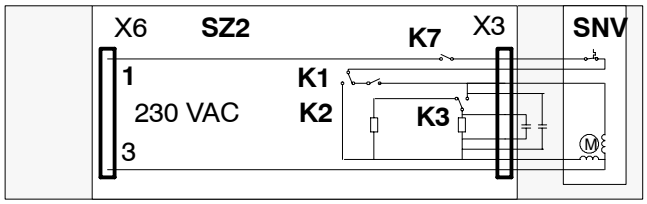
If tabletop does not move up- or downwards

- Check the relay **K1** or **K2** on board **SZ2**. One of both relays must be activated by pressing either the footswitch or the optional handswitch

The relay contact supplies the voltage of **230 VAC** to the motor **SNV** via **SZ2 X3:1/:2/:3**



K1 Table upwards relay
K2 Table downwards relay
K3 Start up relay for starting capacitor. Relay is activated over 1 s only in the upwarts starting phase.



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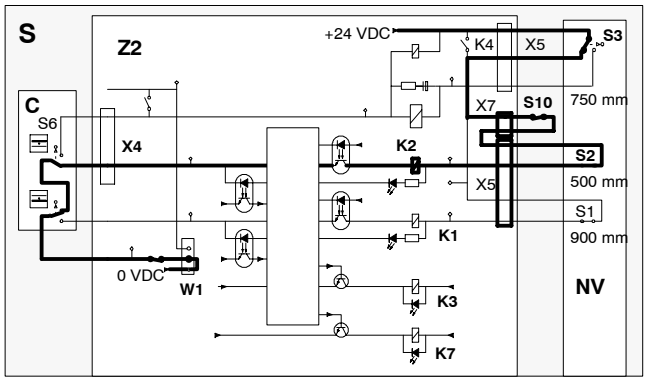
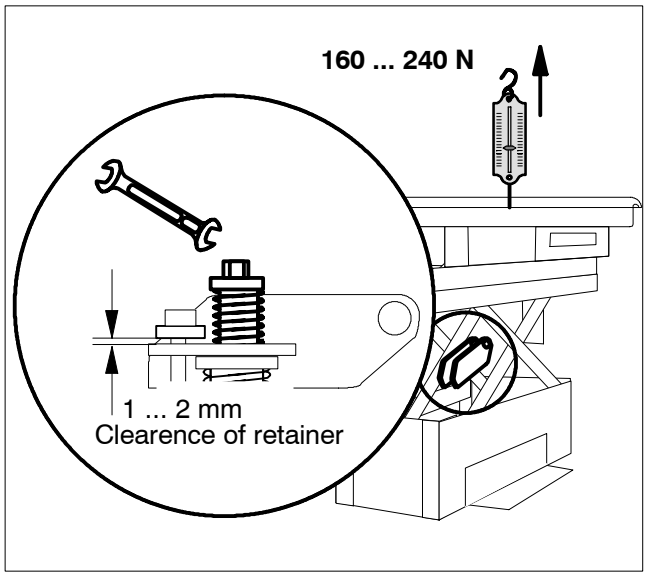
During movement the tabletop stops in the middle position of table height via the 750 mm-switch **SNV S3** on the table lift motor .



- See also drawing 4Z-2

4.2. Collision switch



- Check the force of the table movement.
  - Pull up the tabletop with a spring balance. The safety switch **SS10** must open if a force of 160 ... 240 N is reached. Otherwise:
  - adjust the spring tension at the tension screw with a 13 mm-spanner
    clockwise = force of collision will decrease
    counterclockwise = force of collision will increase

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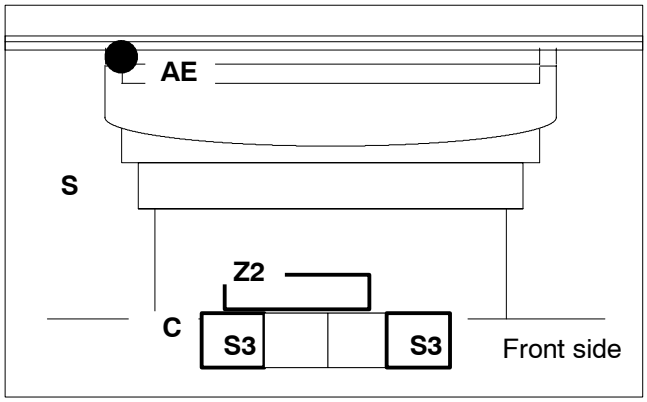
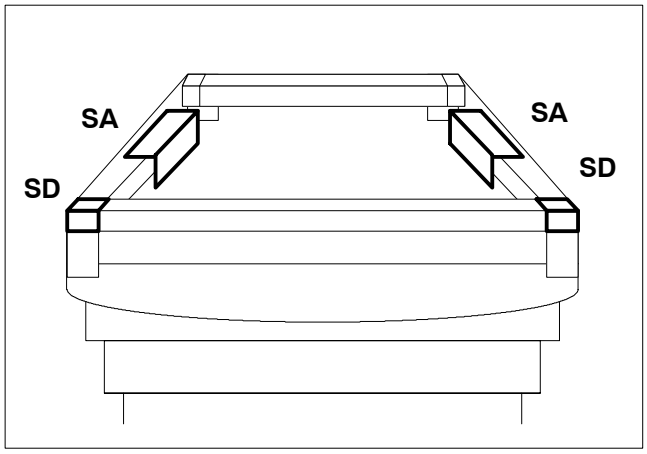
5. Tabletop movement

5.1. Floating table

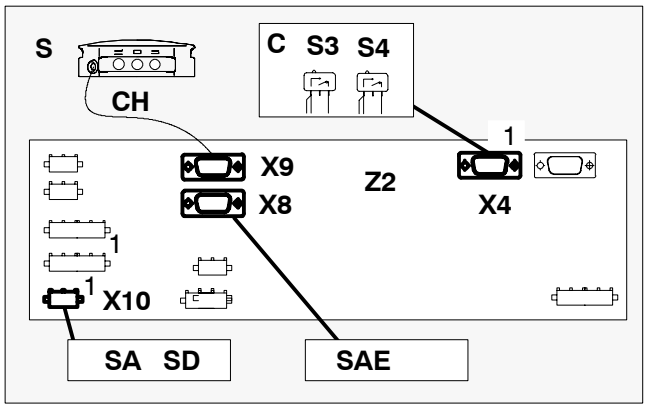


- Press the footswitch **SC S3**. The tabletop must be floatable. If not, check items:
  footswitch lock **S AE**
  (has not to be active = pressed)
  brakes for longitudinal and transverse direction
  footswitch for tabletop floating
- Use the second table control to check functions as described above, if possible.

5.2. Table carriage brakes



- Check function of the brakes.



- Check connection to **SZ2 X10**. Voltage of +24 V will be delivered via the footswitch **S3** or via the optional second table control switch.
  If the footswitches are locked via the footswitch lock, functions of tabletop movements via the optional second table control are always possible.

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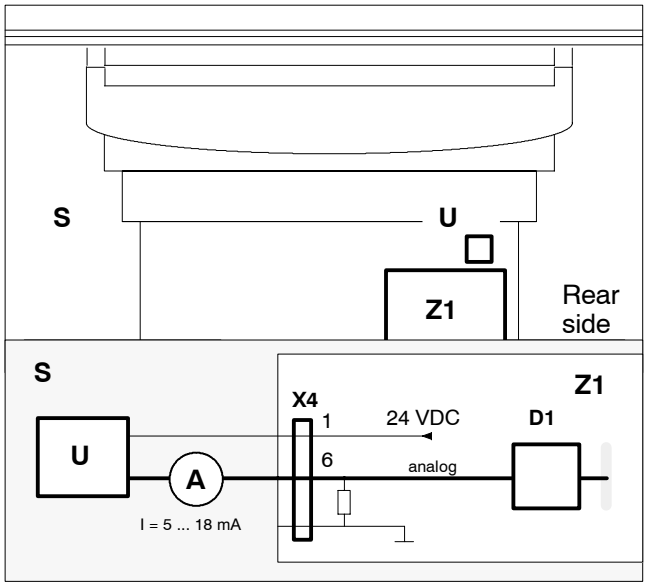
6. Height sensing

6.1. Table height sensor



- See also drawing Z1-3

The height sensor operates as a current source.
The range of current value is 5 mA (table is in lowest position) up to 18 mA (table is in uppermost position).

The current value can be shown :

- Connect a service PC to **SZ1 X20**
- Call up program VT100 for monitoring
- Type↲
  - `superuser`↲
  - `set service output_errors_to_vt100 1`↲

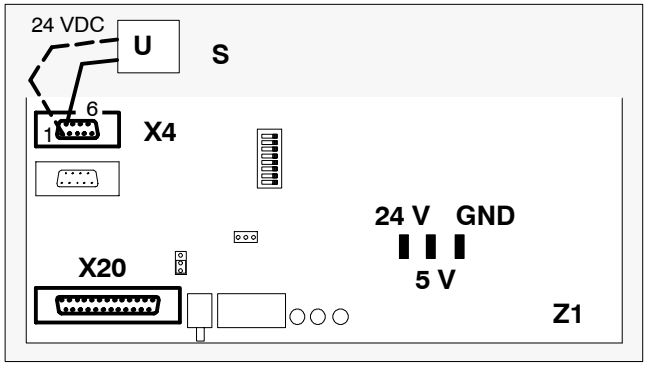
Every action will be shown on the PC screen, also the current depending on the topical table height.

- `show analogue`↲

The analogue inputs will be displayed on the PC screen.

- `show service sid`↲

The SID parameters will be displayed on the PC screen.



- Check the height sensor **SU** at **SZ1 X4**, measure the current
  - If I = 0 mA, check voltage at **X4:1** or find the reason in the cable
  - If I = 20 mA, check the cable or replace the height sensor.

■

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REPLACEMENTS

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1.1. Manpower 4-1

1.2. Replacement 4-1

1.3. Final work 4-1

2. Replacement of the height sensor **4-2**

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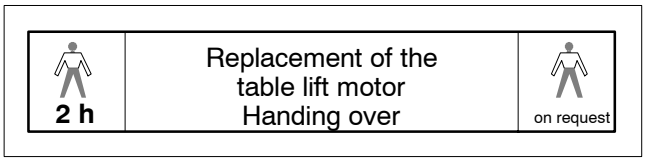
1. Replacement of the table lift motor at BuckyDiagnost TH2

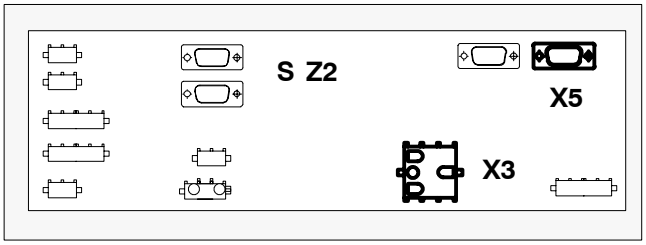
1.1. Manpower

The replacement has to be done by **one engineer** and takes approximatly **two hours**. A second person must be present on request (e.g. to insert the safety rod)



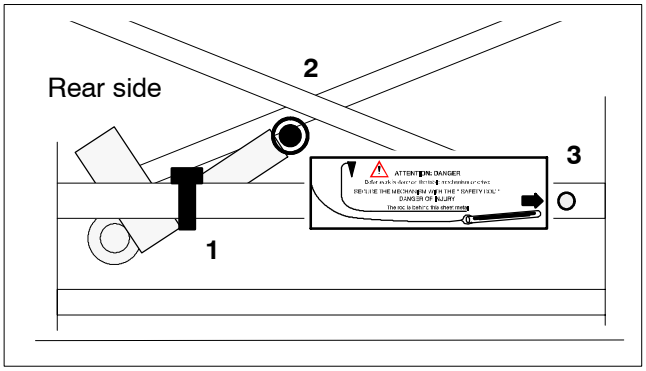
1.2. Replacement

- Switch **OFF** the system.
- Remove the table covers.
- Disconnect the motor unit from the table controller board **SZ2** on **X3** and **X5**.

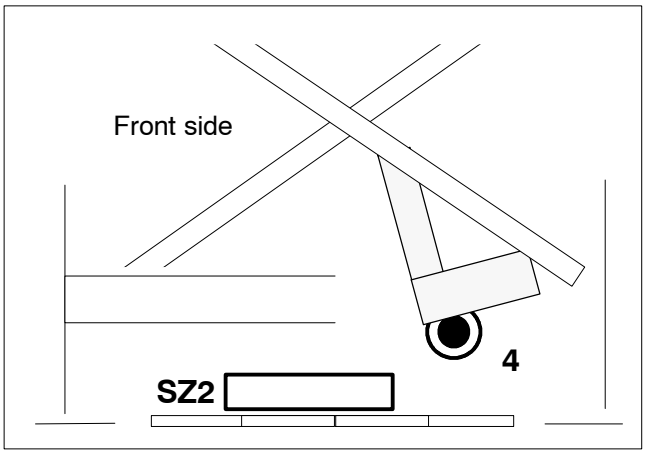


If the table is in the lowest position:

- Screw the bolt **(1)** against the frame and lift the frame about 1 cm so that access to the cylindrical pin **(2)** is possible.
- Remove the retaining ring on the pin **(2)**.
- Remove the cylindrical pin.
- Lift up the table assy to insert the safety rod through the holes **3** rear side and front side. (The safety rod is placed near the safety label on the frame.)



- Remove the retaining ring on the cylindrical pin **(4)**.
- Remove the cylindrical pin.
- Replace the table lift motor.
- Assemble the table vice versa.
- Park the safety rod.



1.3. Final work

- Test movements of the table.

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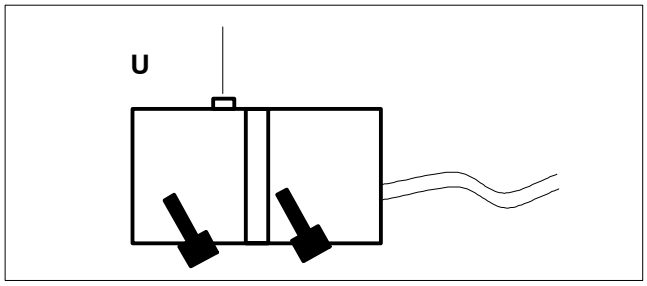
2. Replacement of the height sensor

- Raise the bucky tabletop to its uppermost position.
- Loosen the two screws on the housing.
- Replace the height sensor unit.
- Assemble in reverse order.



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ADJUSTMENTS

Contents **6-0.1**

1. Delay time check by test exposures **6-1**

1.1. Cassette loader INALFA 6-1

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2. Tomography (option) **6-2**

2.1. Adjustment of tomo force 6-2

2.2. Tomo exposure 6-2

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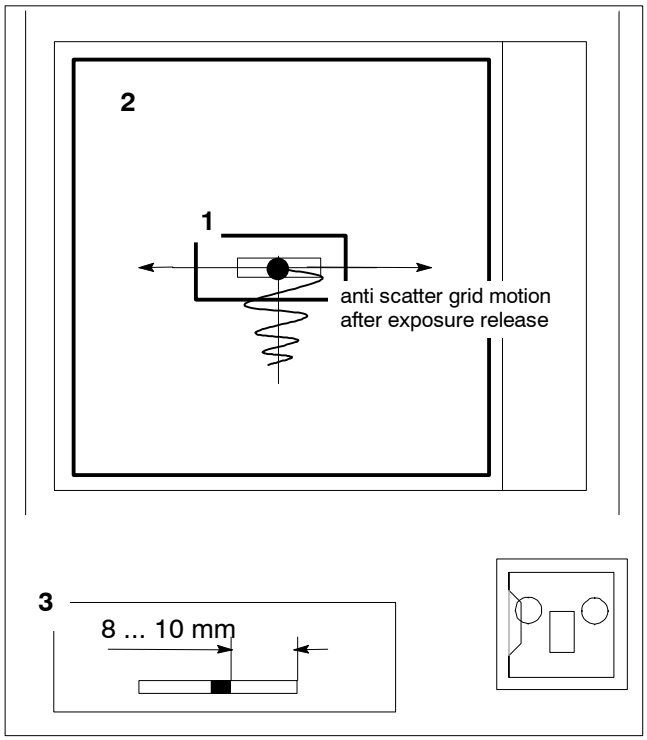
1. Delay time check by test exposures

To adjust the exposure delay time preparatory work is necessary.



- Remove the table top to have free access to the anti scatter grid of bucky table .
- Check the delay time by test exposure
  - Lay the lead plate **(1)** on the grid **(2)**, fix with a piece of adhesive tape.
  - Make two exposures (see table) on the same film.
    The exposure will shown a spot and a bar **(3)**.

Exposure	Exposure time [sec]	[kV]	[mA]	Focus [mm]
1	0.5	60	15	0.6
2	0.02	125	25	0.6

- Measure the distance as shown in **(3)**.

1.1. Cassette loader INALFA

- See manual of INALFA.

1.2. Cassette loader ACL4

- See manual of ACL4.

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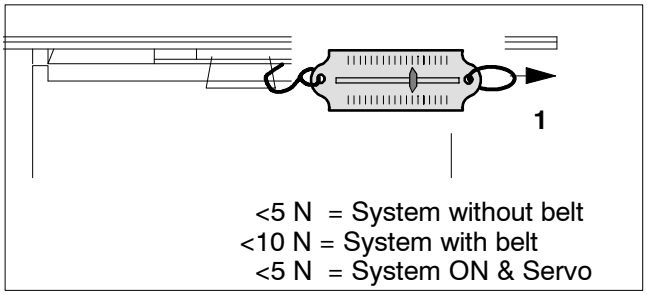
2. Tomography (option)

2.1. Adjustment of tomo force

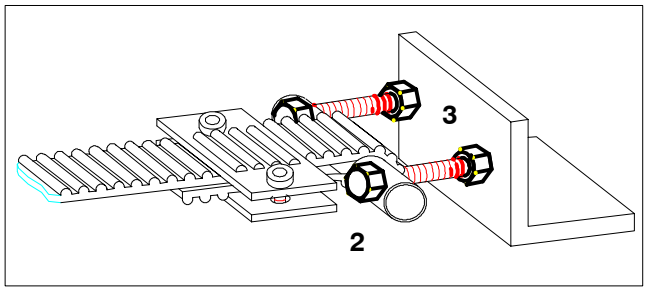


- Move the table top to its height center position.

If the tomography function is established the bucky unit will center itself after Power-on.

- Switch **OFF** the system.
- Insert a spring scale to the handle **(1)**.
  - Pull with the spring balance. The value of force is <10 N.

- Switch **ON** the system.
- Insert a spring scale to the handle **(1).**
  - Pull with the spring balance. The value of force is <5 N for a system with servo.

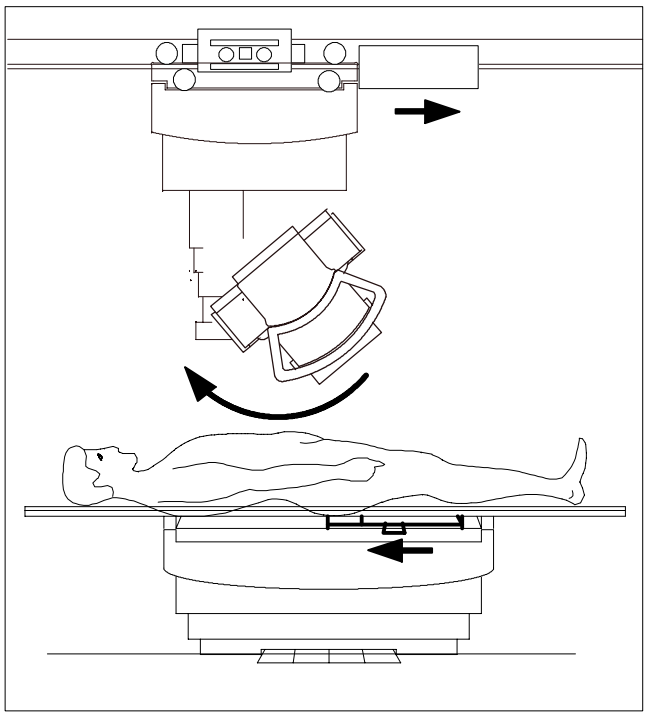


If necessary loosen or tighten the belt via both screws **(2)** by loosen the nut **(3)** after removing the table top.

- Check tomo force as described above.

If the belt oscillates it must be tensed.

The Tray Servo Assistance can be defined, see documentation of program X-Scope, Tomography Configuration, 'Tray Servo Assistance'.



2.2. Tomo exposure

For programming tomo run direction see manual X-Scope.

■

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Drawings

BuckyDiagnost TH2, Mechanical dimensions	Z-1.1
BuckyDiagnost TF, Mechanical dimensions	Z-1.2
Labelling	2Z-10

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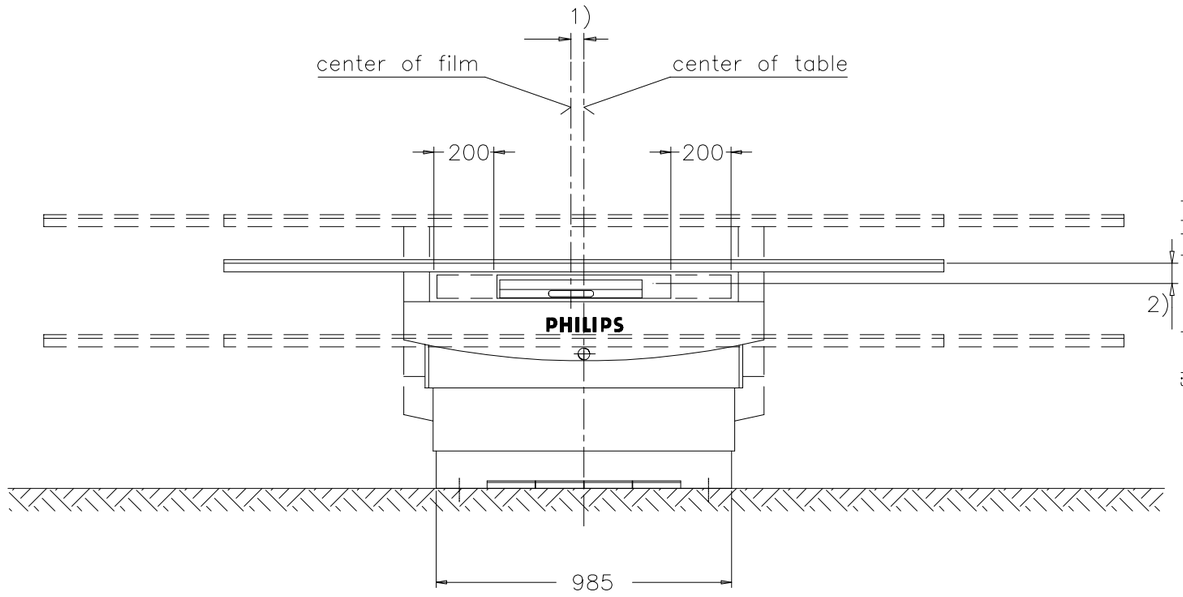

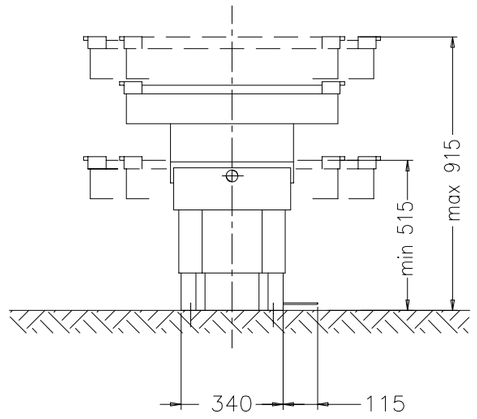

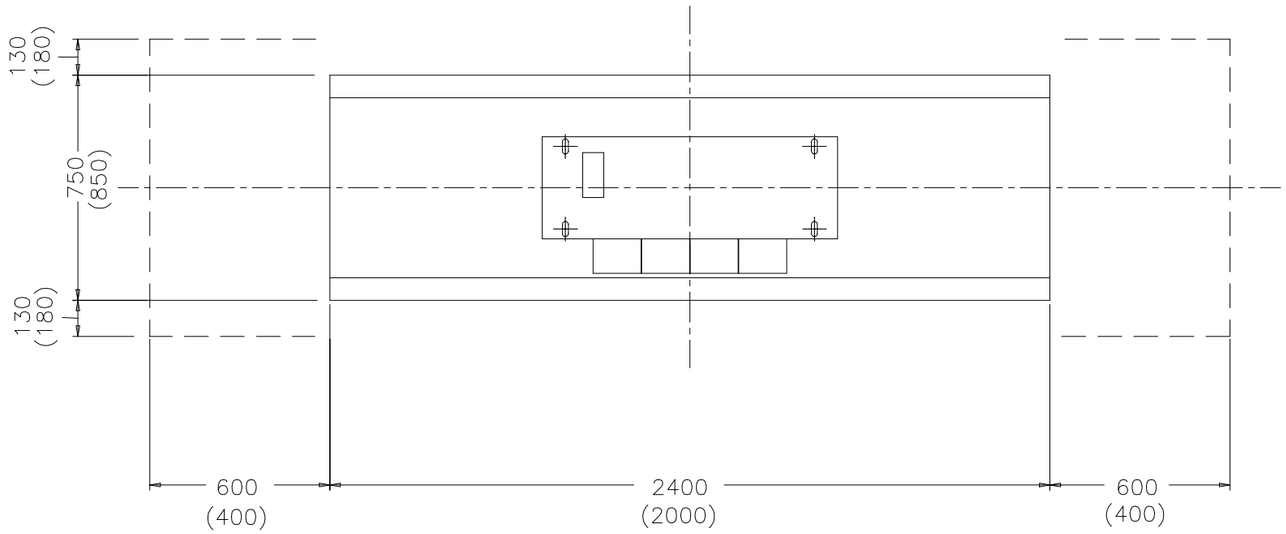

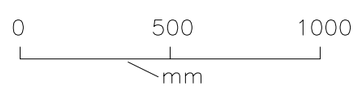

1)

Manual bucky tray INALFA	Center of film +43 mm = center of folder
Automatic bucky tray ACL4	Center of film = center of table
DDF	Center of film = center of table

2)

	750	850
Manual bucky tray INALFA	67 mm	76.75 mm
Automatic bucky tray ACL4	71.25 mm	81.95 mm
DDF	75.25 mm	85.95 mm

Product Planning

A3 03-09-08 Schr./Ost.
451298200962_z1_1_030

BuckyDiagnost TH2
Mechanical dimensions

Z-1.1

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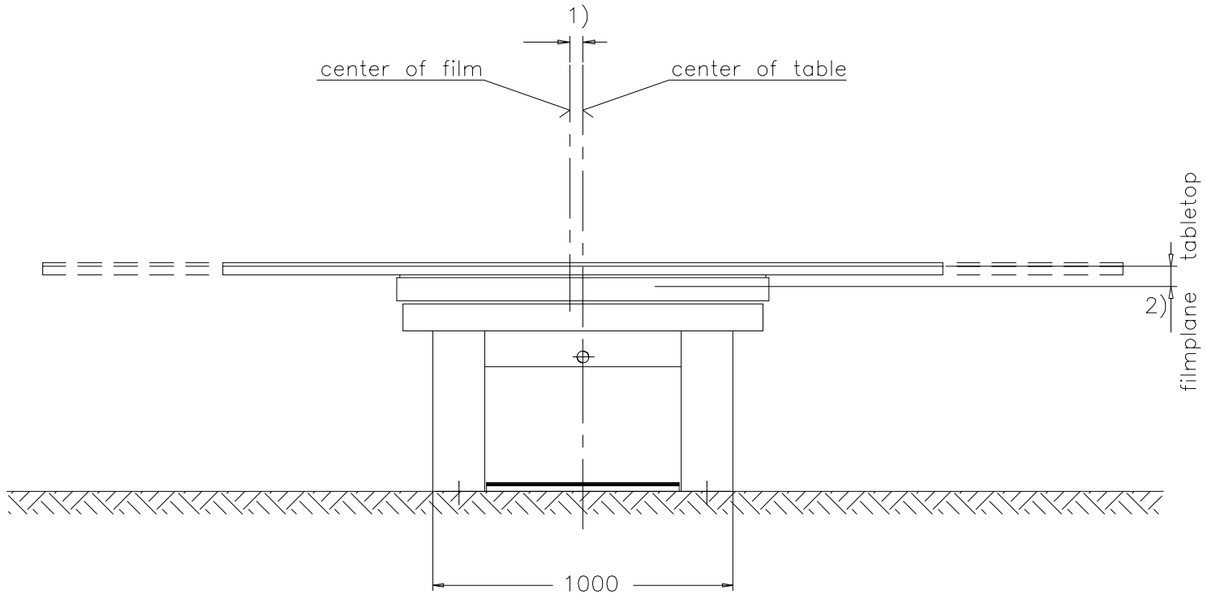
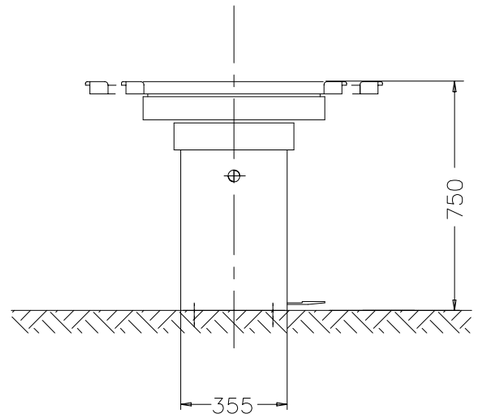


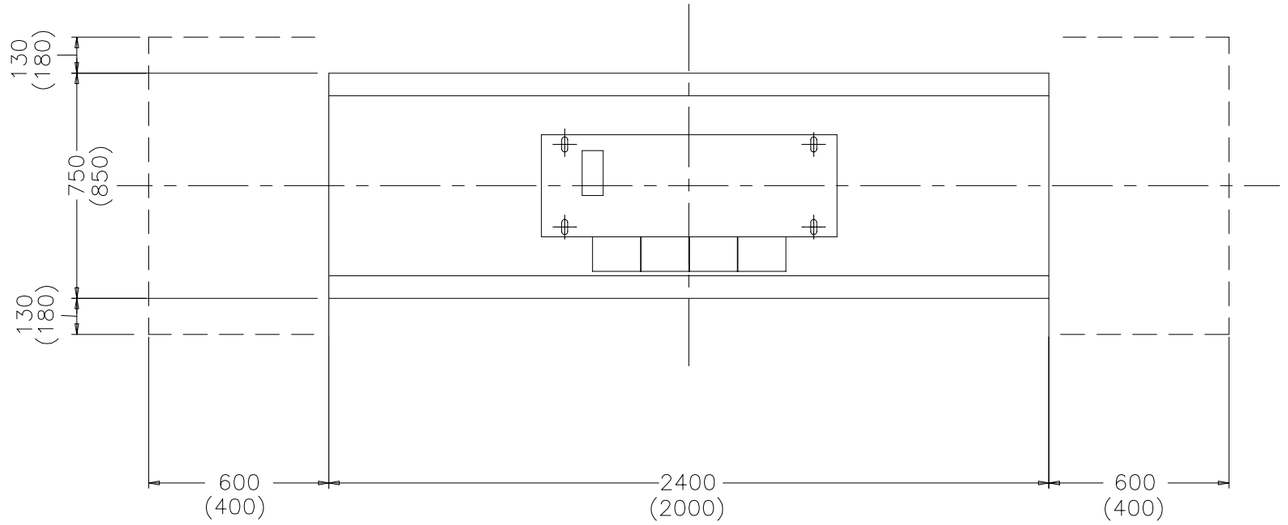


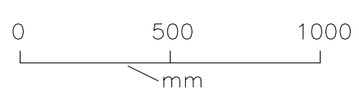
1)

Manual bucky tray INALFA	Center of film +43 mm = center of folder
Automatic bucky tray ACL4	Center of film = center of table
DDF	Center of film = center of table

2)

	750	850
Manual bucky tray INALFA	67 mm	76.75 mm
Automatic bucky tray ACL4	71.25 mm	81.95 mm
DDF	75.25 mm	85.95 mm





Product Planning

A3 03-09-08 Schr./Ost.
4512982009 62_z1_2_030

BuckyDiagnost TF
Mechanical dimensions

Z-1.2

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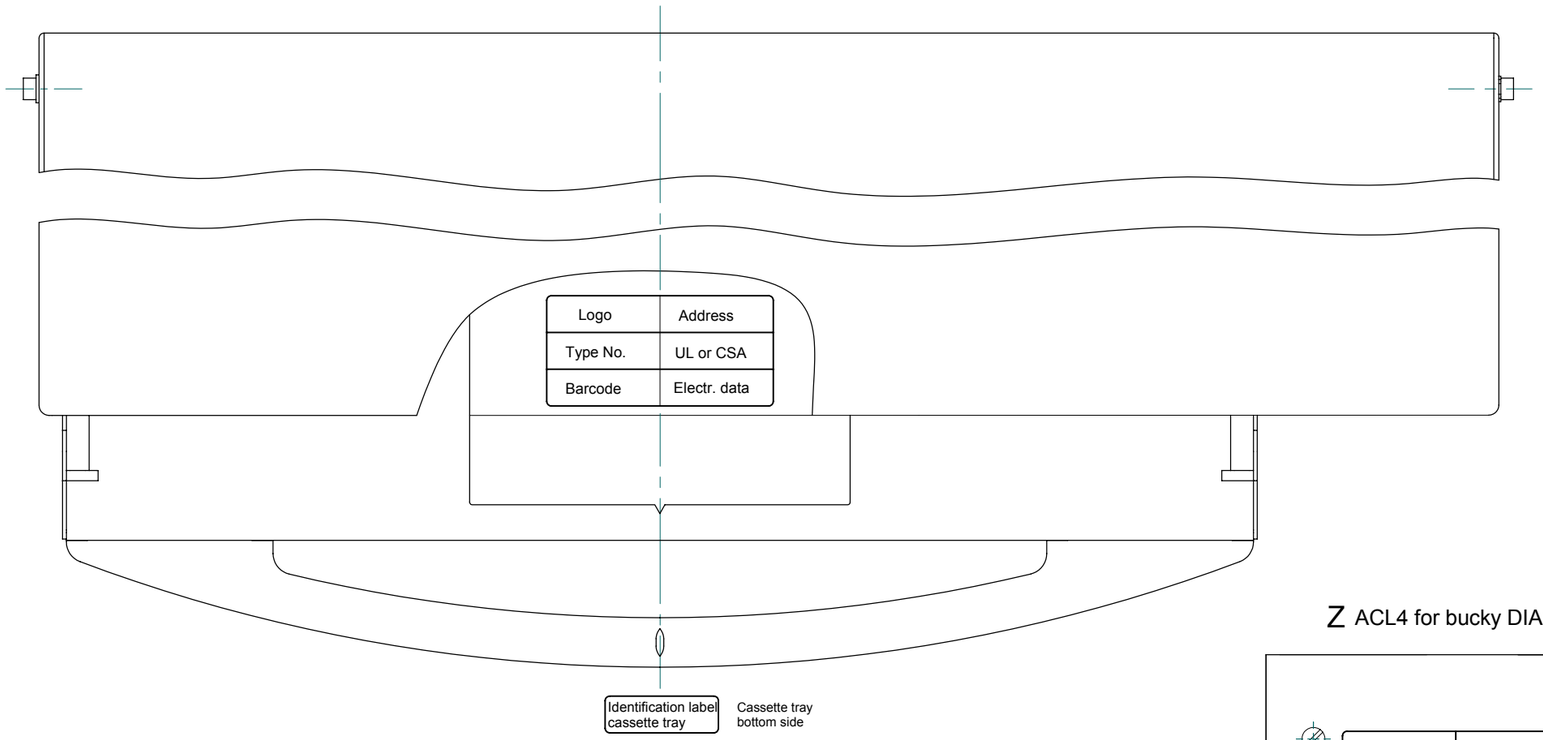
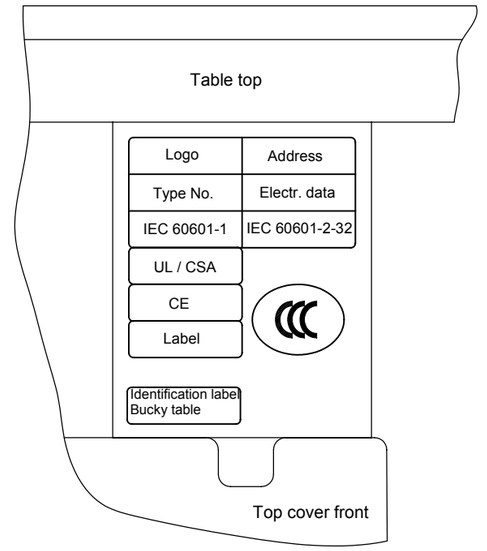
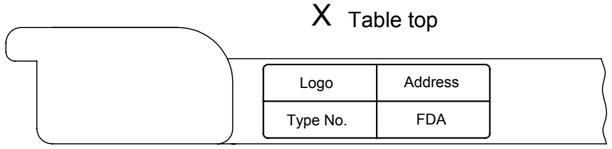
Y Bucky device



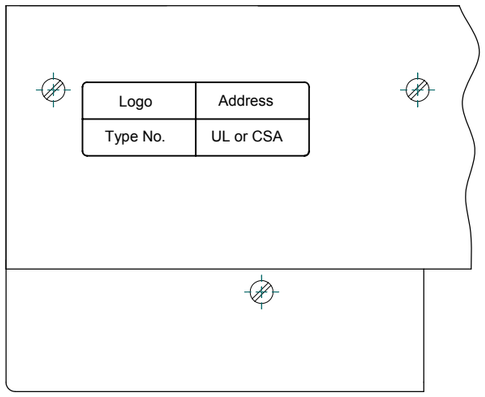
W Table height adjustable or V Table fixed height

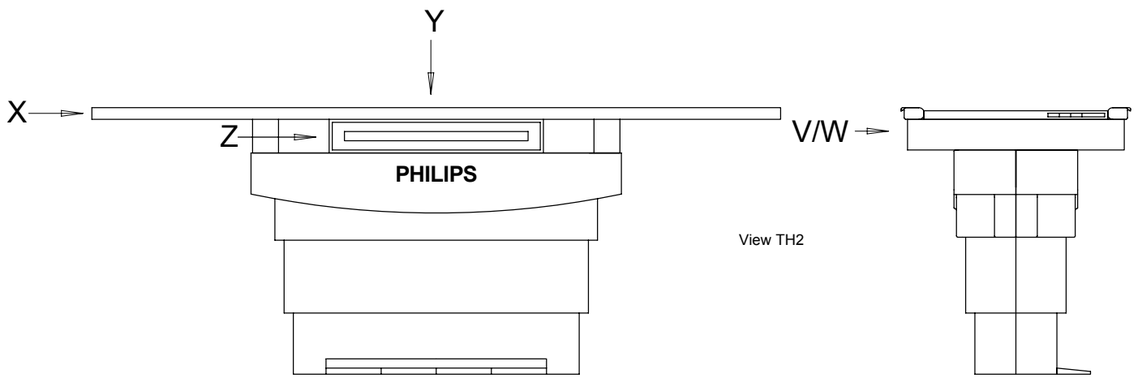


X Table top



Z ACL4 for bucky DIAGNOST TH2





View TH2

A1/A3 04-05-11 Schr.

BuckyDiagnost TH2/TF
Labelling

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Drawings

BuckyDiagnost TH2 Survey of components	Z1-01
BuckyDiagnost TF Survey of components	Z1-02
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BuckyDiagnost TH2 / TF Wiring diagram	Z2-1
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BuckyDiagnost TF SZ2 Table control	Z2-3.2
BuckyDiagnost TH2 Location plan	Z2-4.1
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BuckyDiagnost TH2 Tomo drive control Survey of components	Z2-5
BuckyDiagnost TH2 Earthing diagram	Z2-6.1
BuckyDiagnost TF Earthing diagram	Z2-6.2

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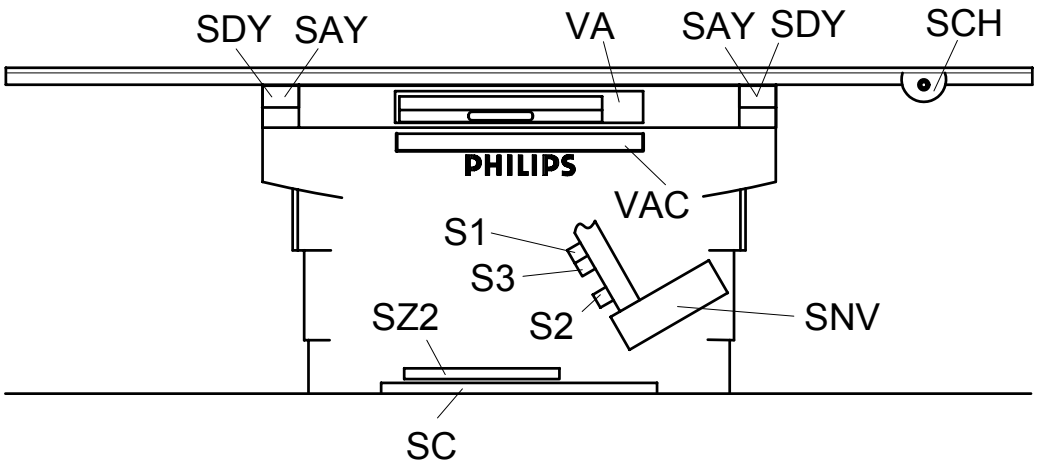
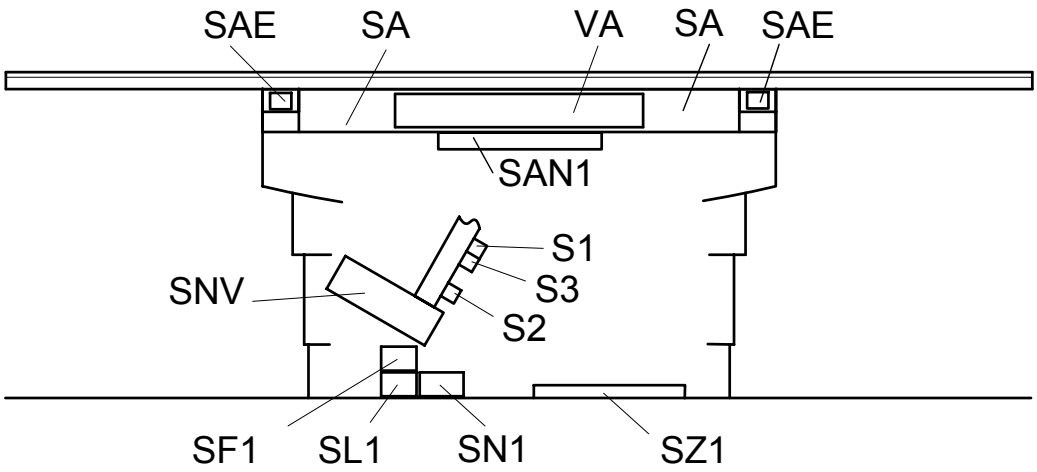
front view



rear view



SA = Transverse carriage
SAE = Foot switch lock (option)
SAN1 = Tomo drive assy (option) (Motor and Controller)
SAY = Transverse brakes
SC = Footswitch
SCH = Handswitch (option)
SDY = Longitudinal brakes
SF1 = Motor protection switch
SL1 = Mains filter
SNV = Motor control switches
SN1 = Power supply 26V DC
SN2 = ACL4 supply
SZ1 = Bucky controller
SZ2 = Table control
VA = Bucky tray
VAC = Brake assy bucky carriage

A4 04-04-07 Schr.

BuckyDiagnost TH2
Survey of components

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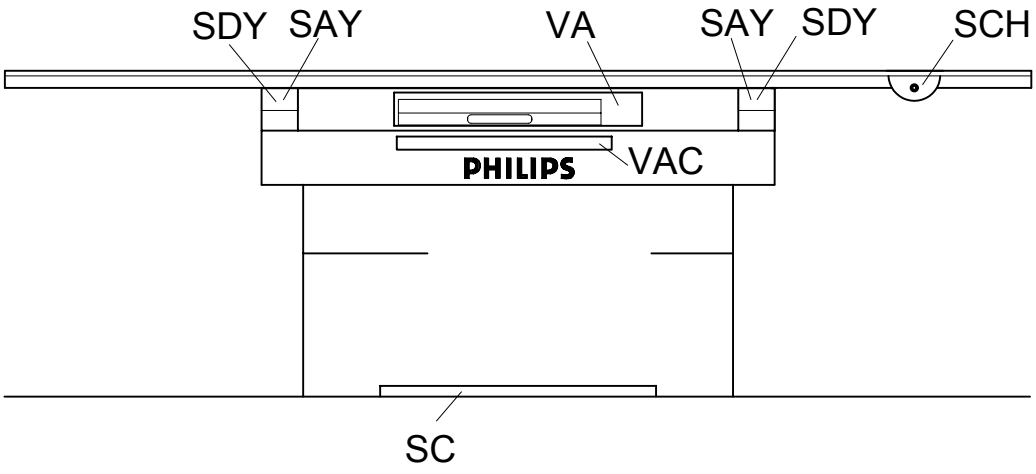
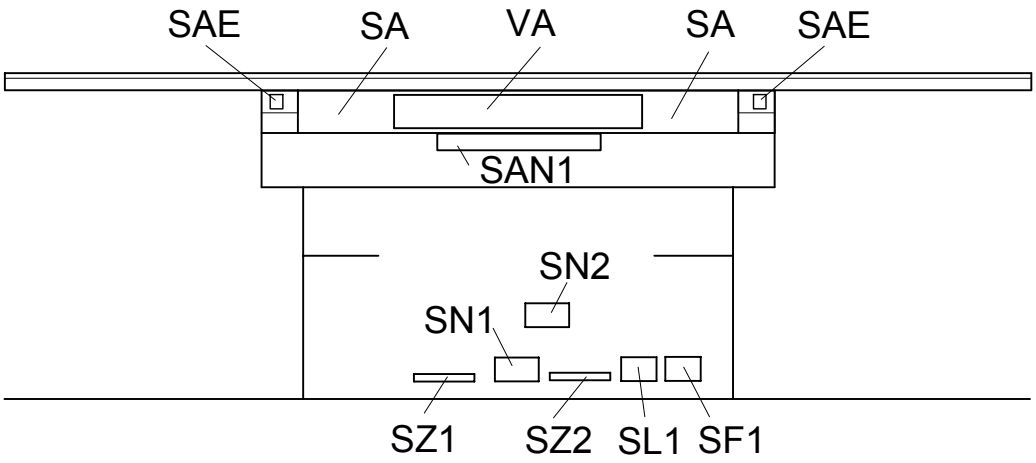
front view



rear view



SA = Transverse carriage
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SAY = Transverse carriage brakes
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SF1 = Motor protection switch
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SZ2 = Table control
VA = Bucky carriage
VAC = Brake assy bucky carriage

A4 04-04-27 Schr.

BuckyDiagnost TF
Survey of components

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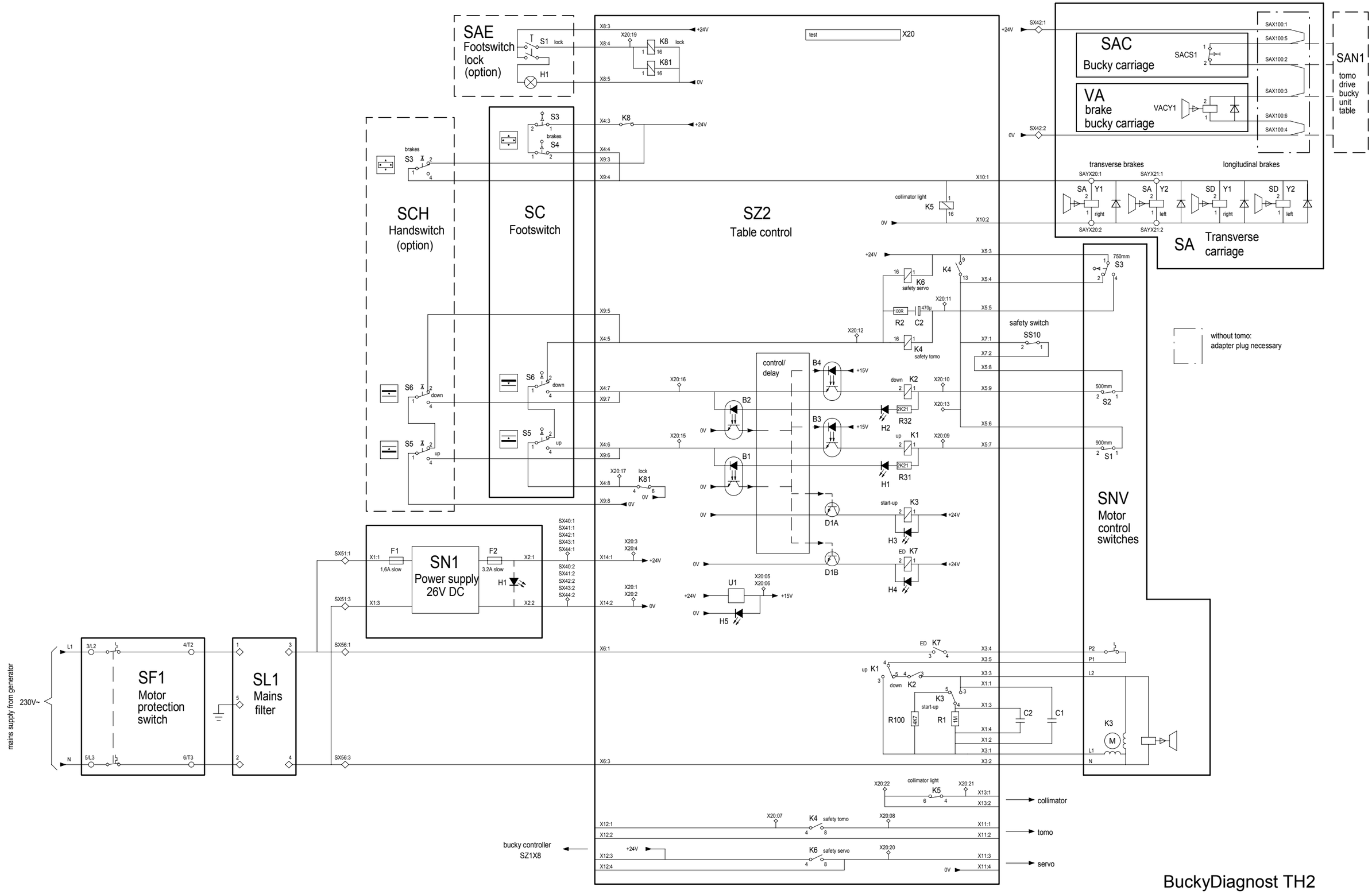

A1/A3 04-09-21 Schr.

BuckyDiagnost TH2
Power supply and brakes

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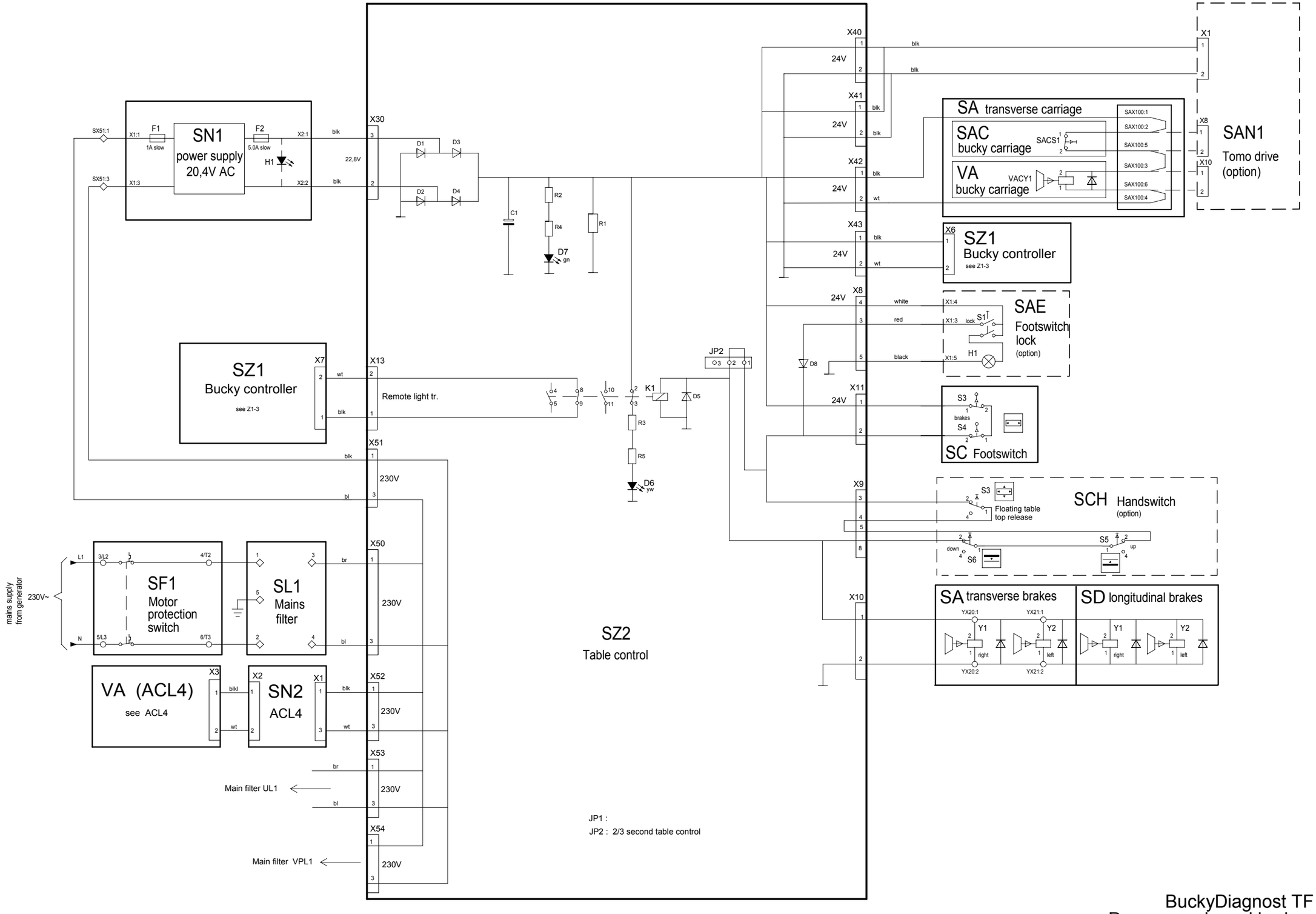

A1/A3 04-09-21 Schr.

BuckyDiagnost TF
Power supply and brakes
with tomo and without tomo

Z1-1.2

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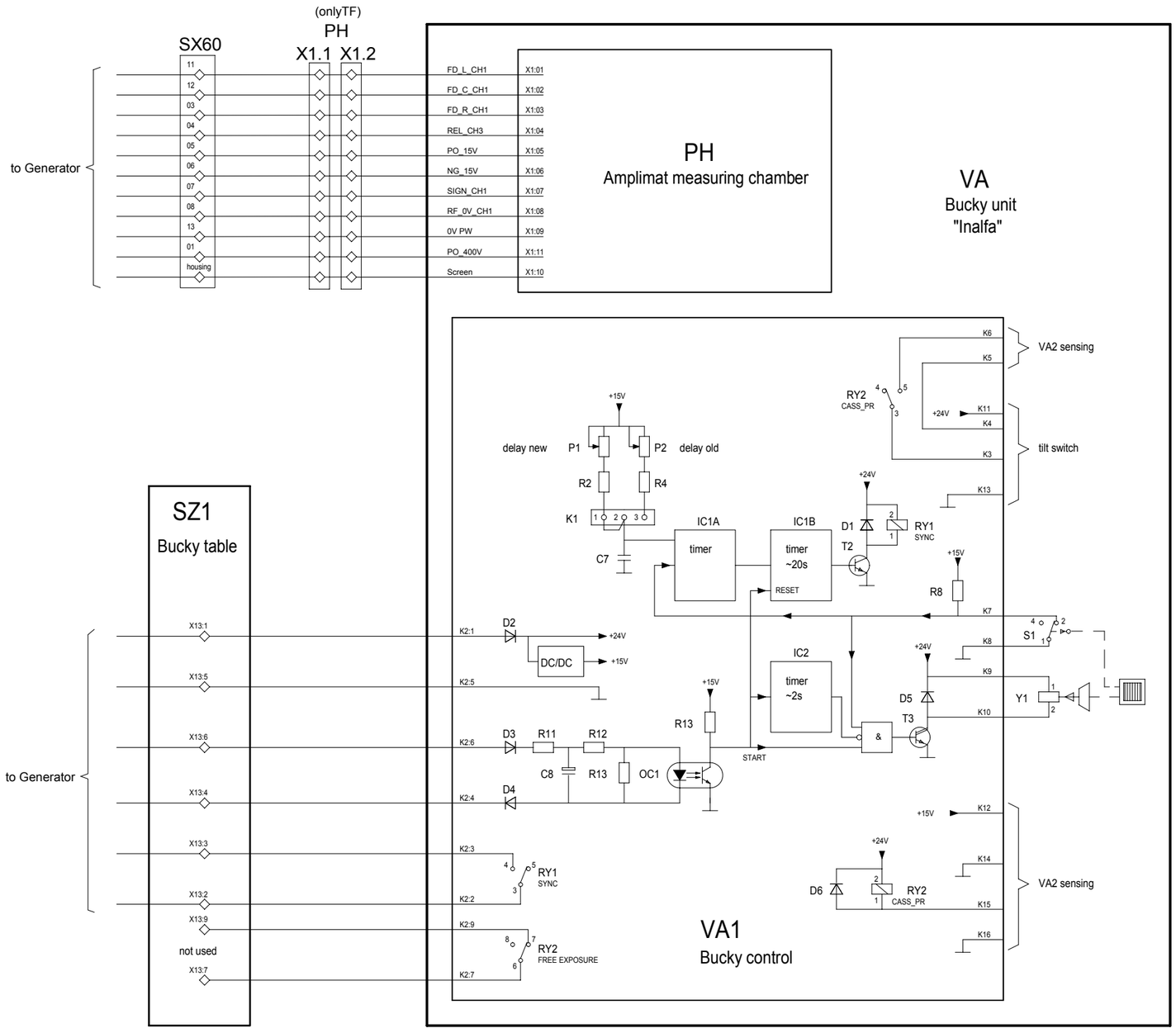

A1/A3 04-04-07 Schr.

BuckyDiagnost TH2 / TF
with bucky unit non sensing

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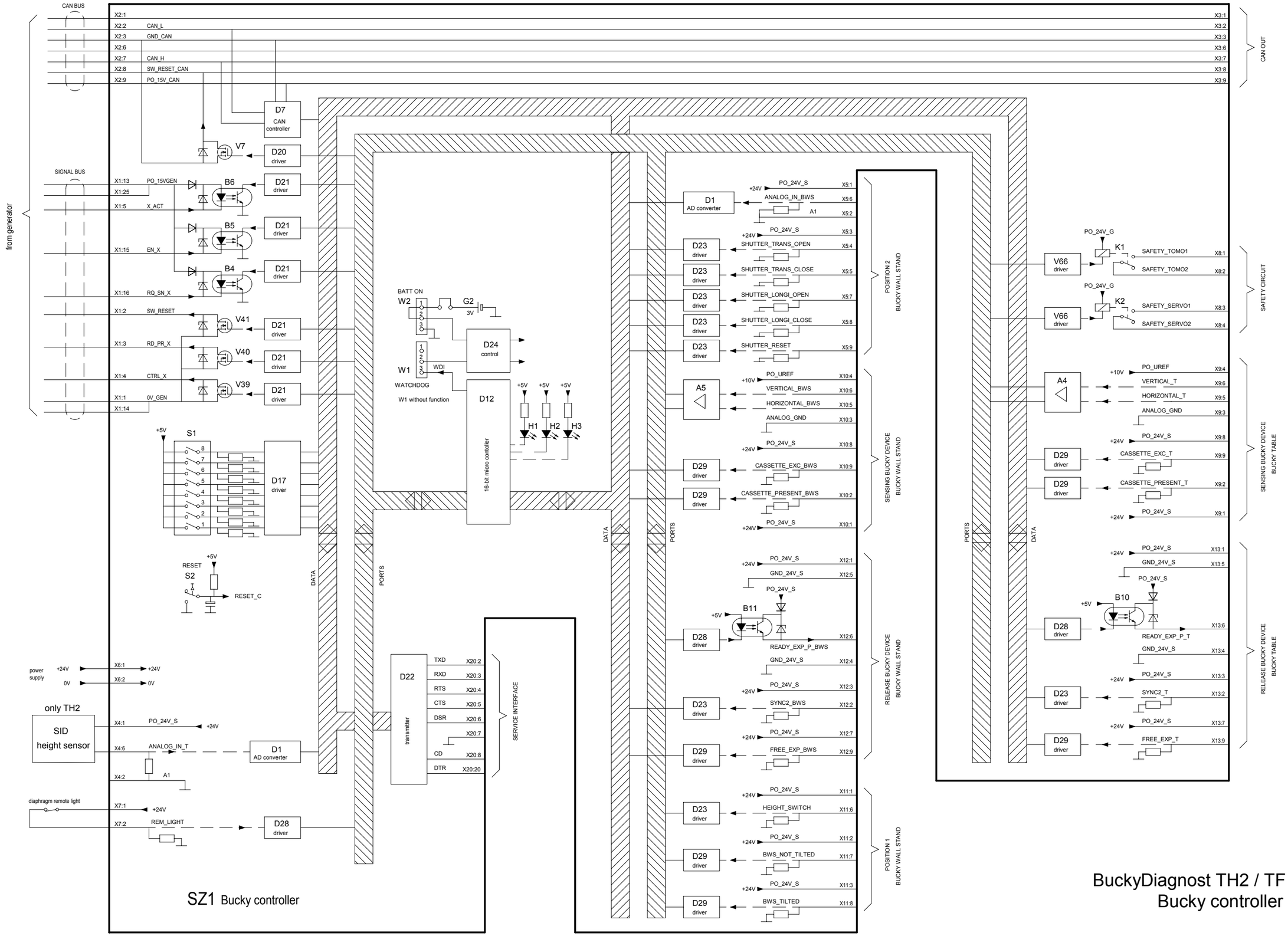

A1/A3 04-04-14 Schr.

BuckyDiagnost TH2 / TF
Bucky controller

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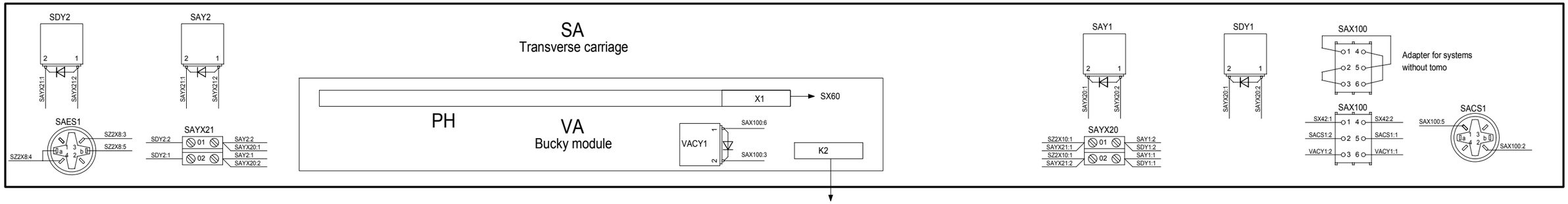
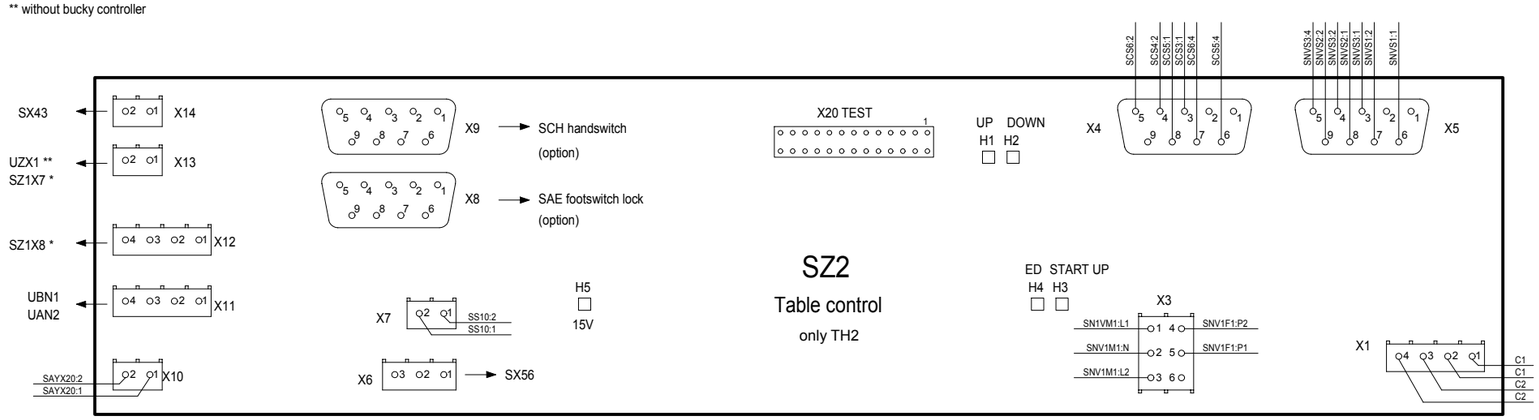
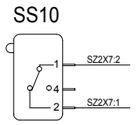
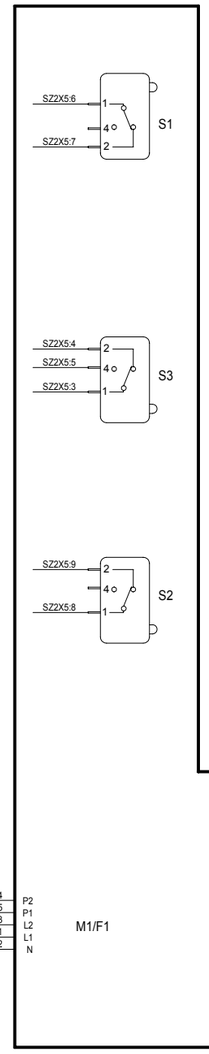
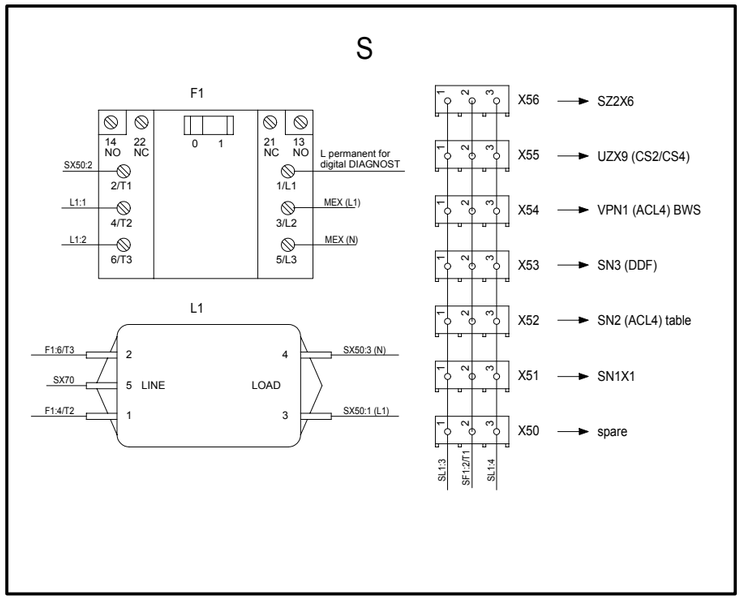


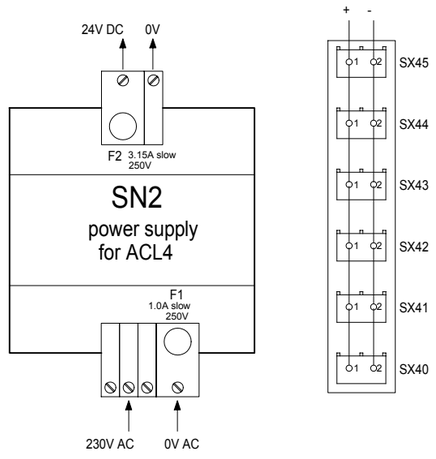
* with bucky controller
** without bucky controller

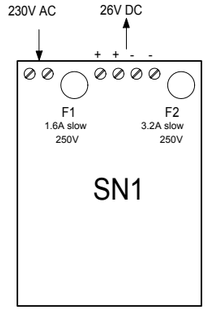




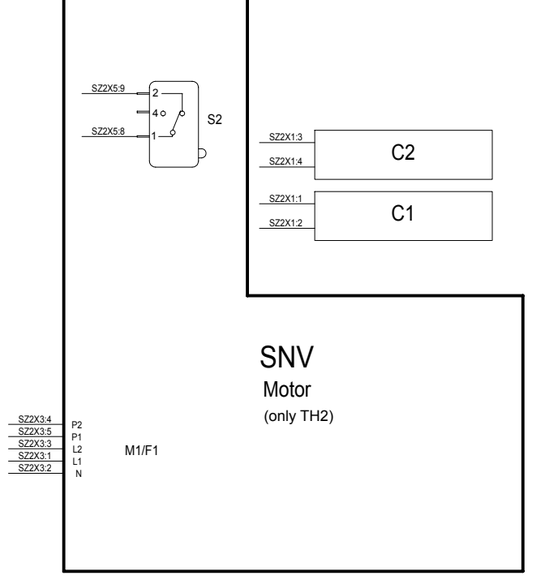








front



A1/A3 04-04-14 Schr.

BuckyDiagnost TH2 / TF
Wiring diagram

Z2-1

BuckyDiagnost TH2 (a/04.0)

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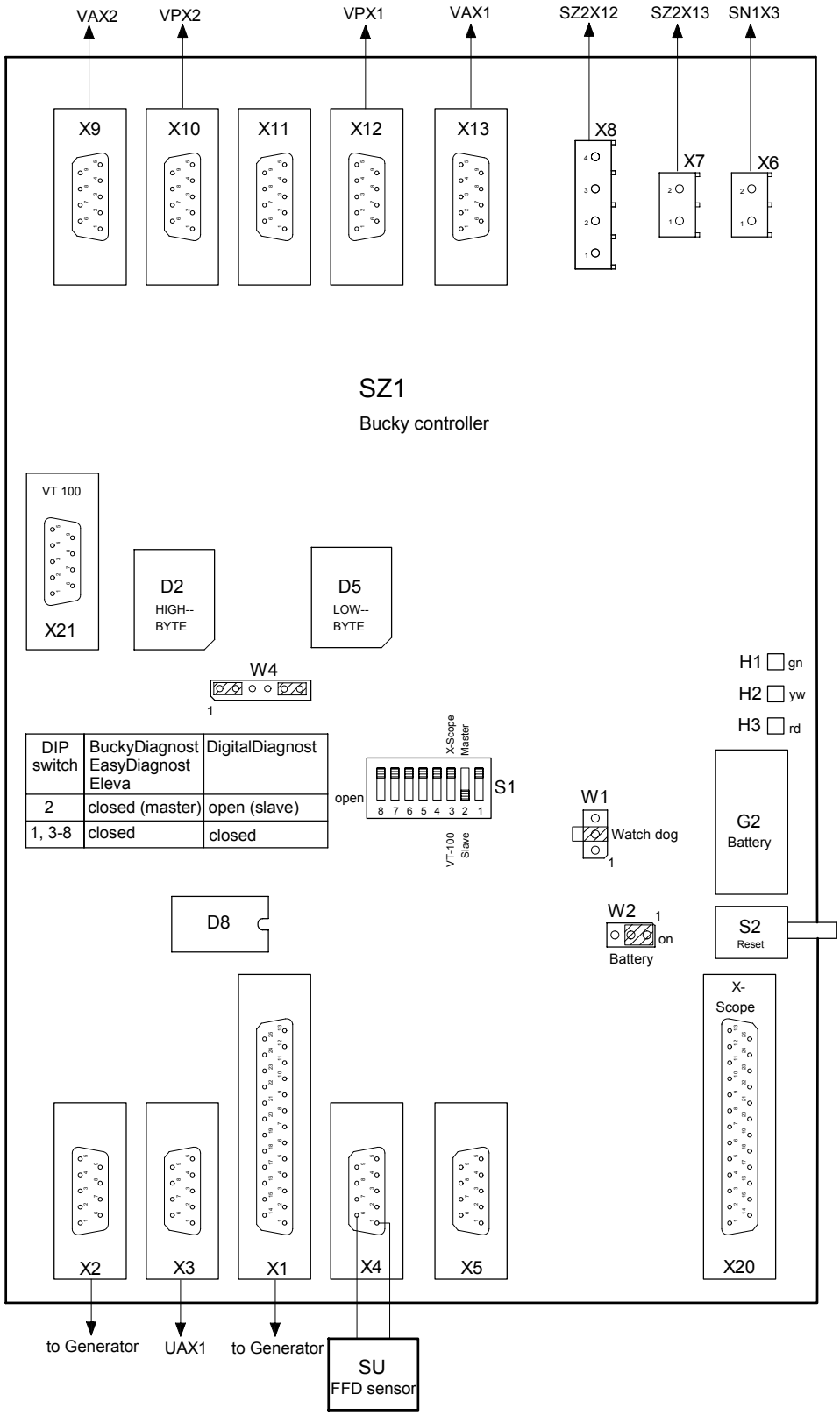

A3/A4 04-04-14 Schr,

BuckyDiagnost TH2 / TF
PCB Bucky controller
Wiring diagram

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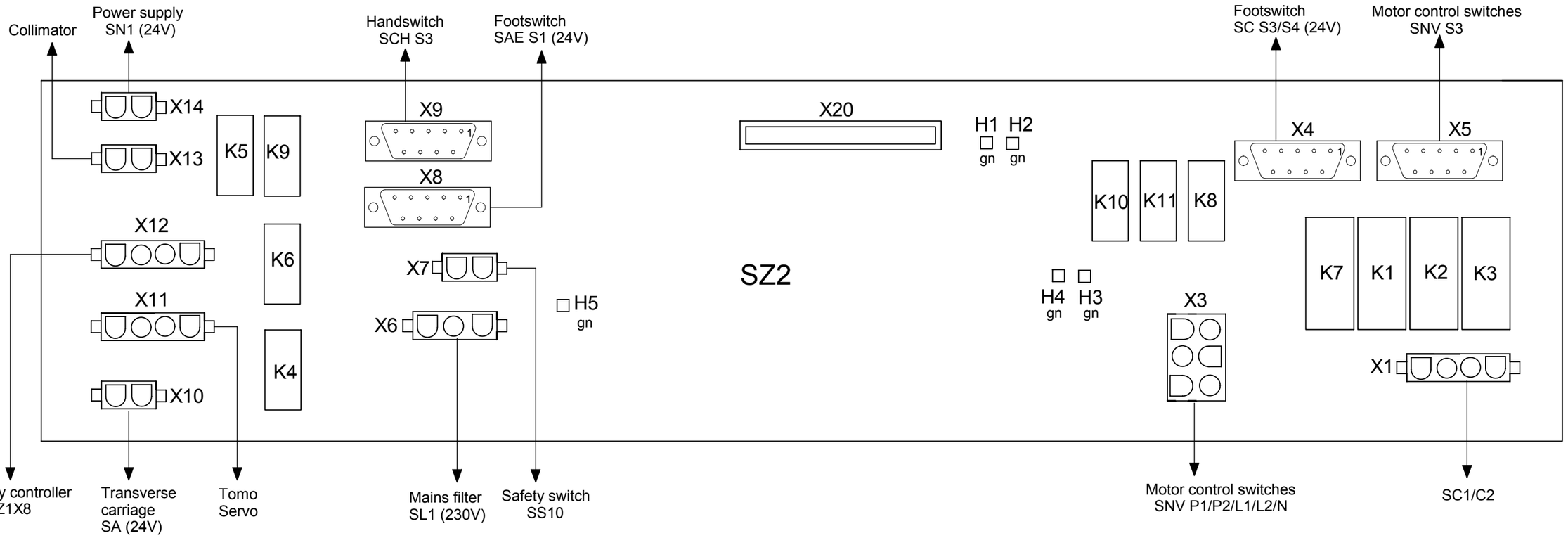

A3 04-04-29 Schr.

SZ2
BuckyDiagnost TH2
Table control

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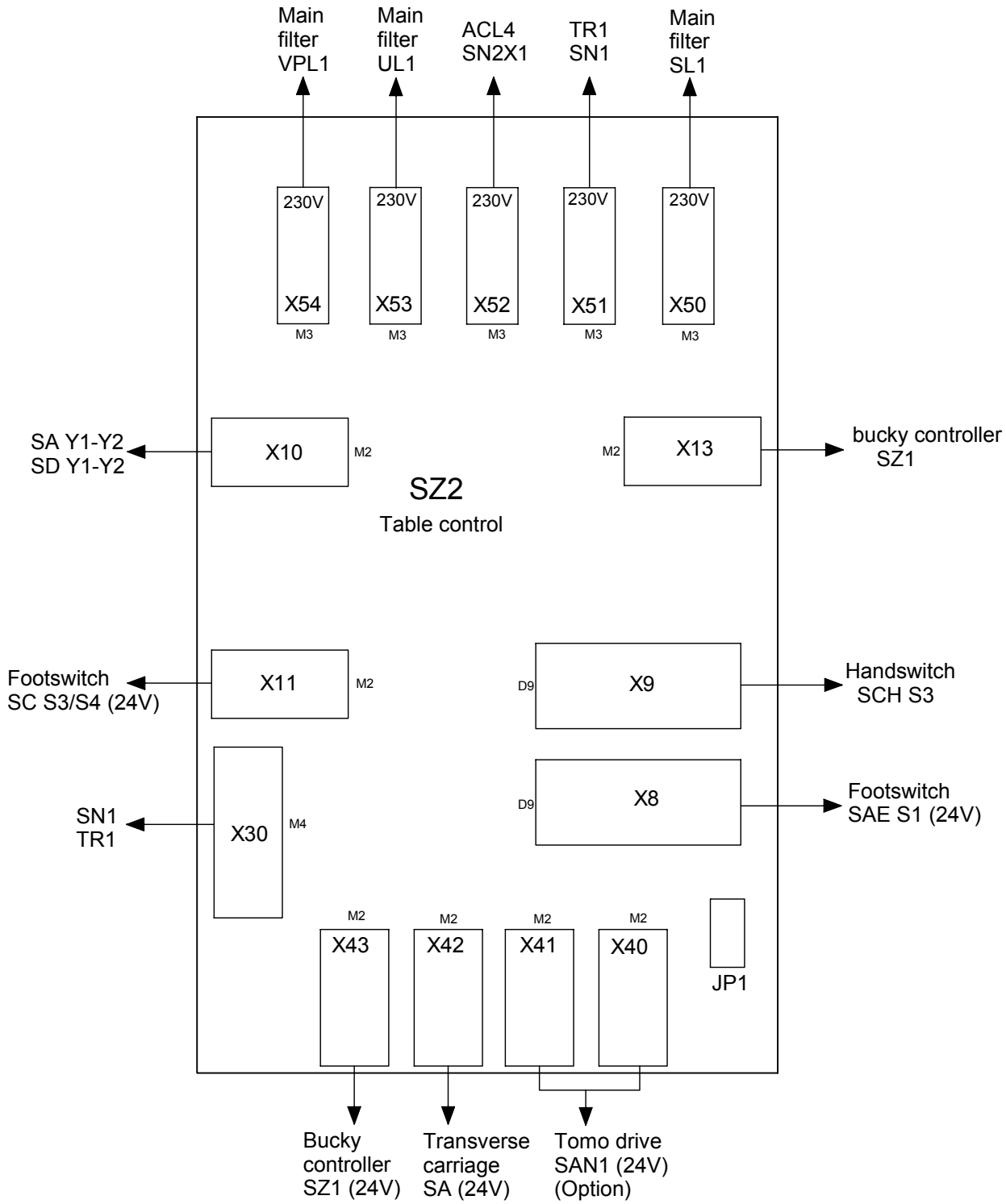

A4 04-04-27 Schr.

SZ2
BuckyDiagnost TF
Table control

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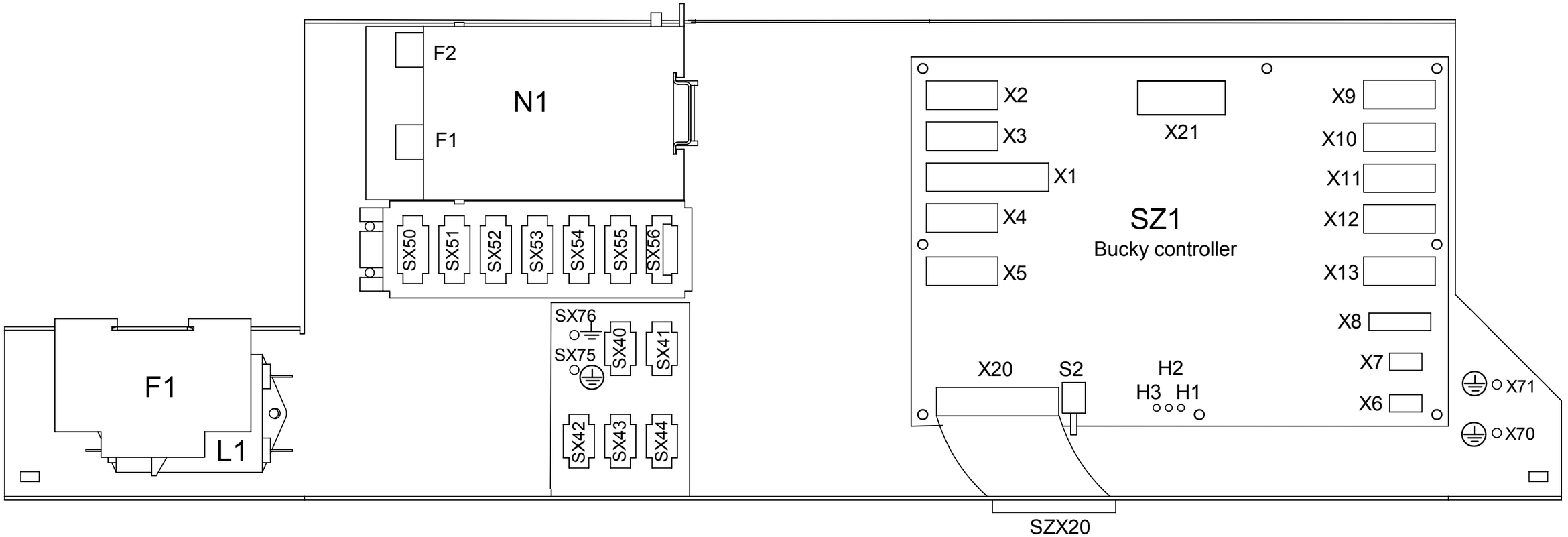

A3 04-04-29 Schr.

BuckyDiagnost TH2
Location plan

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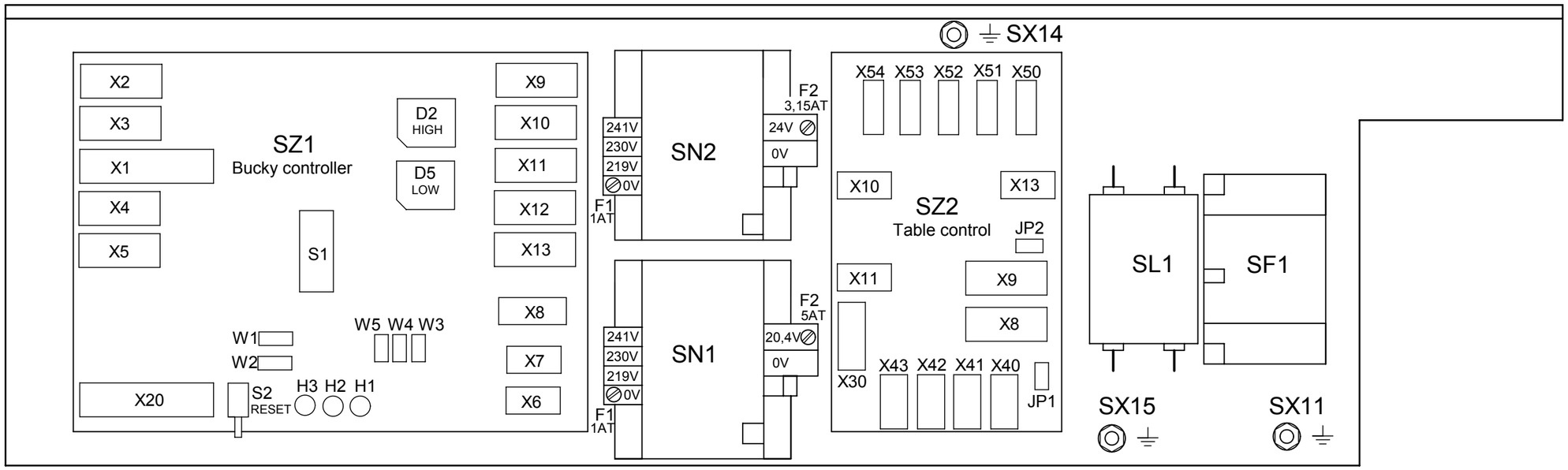

A3 04-04-27 Schr.

BuckyDiagnost TF
Location plan

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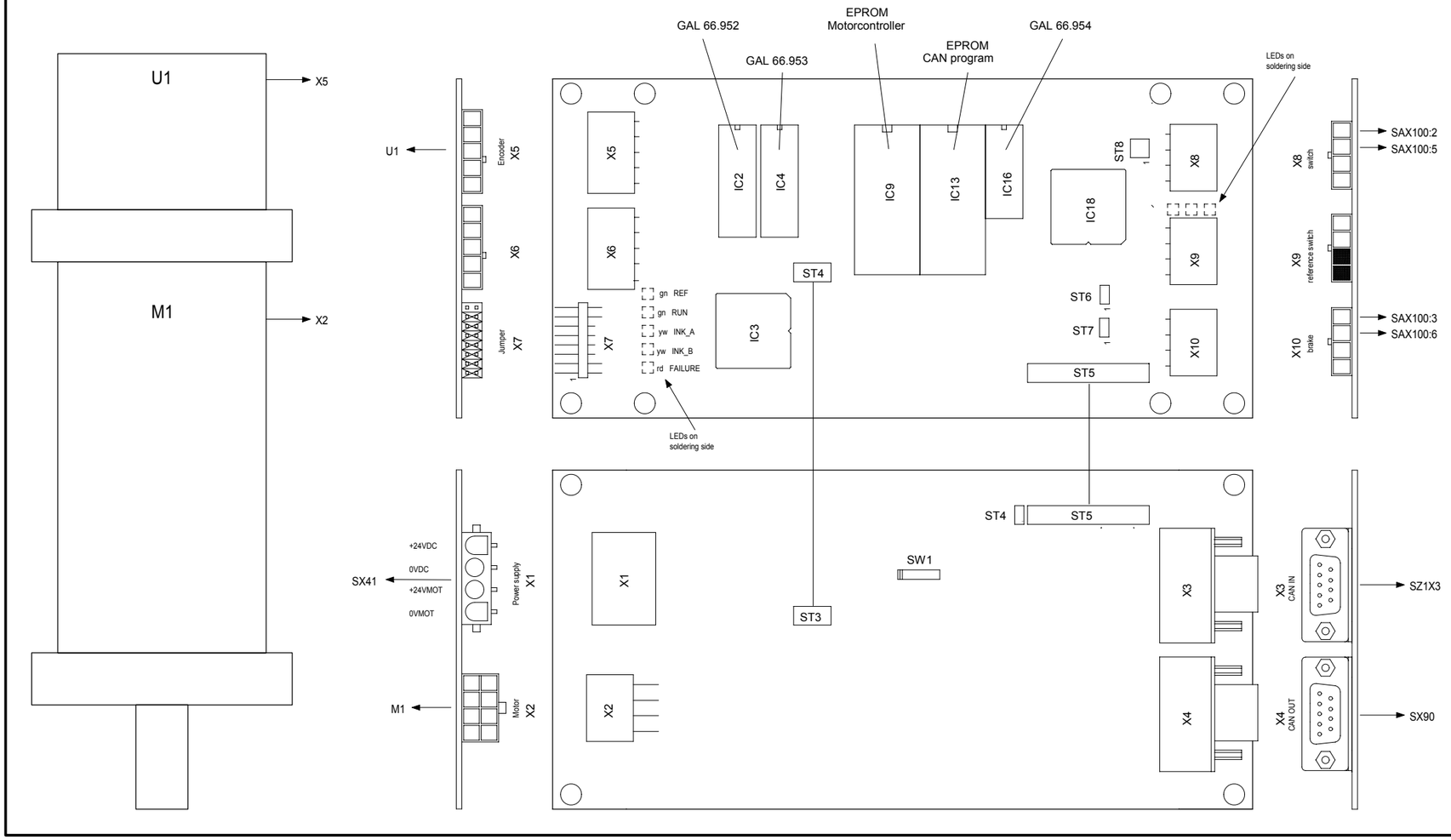
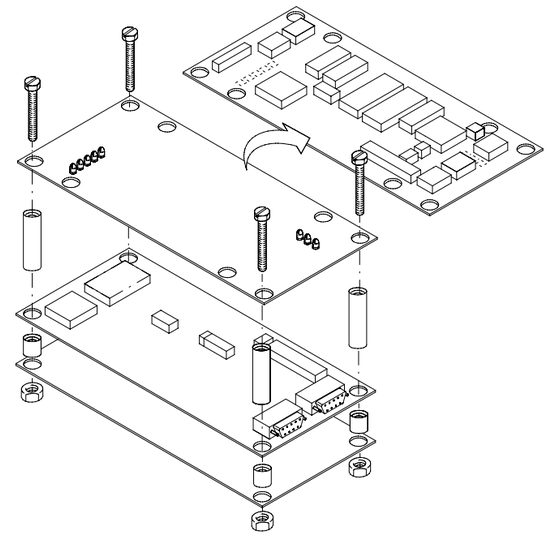
SAN1
Tomo drive control





insolation plate

A1/A3 04-04-14 Schr.

BuckyDiagnost TH2
Tomo drive control
Survey of components

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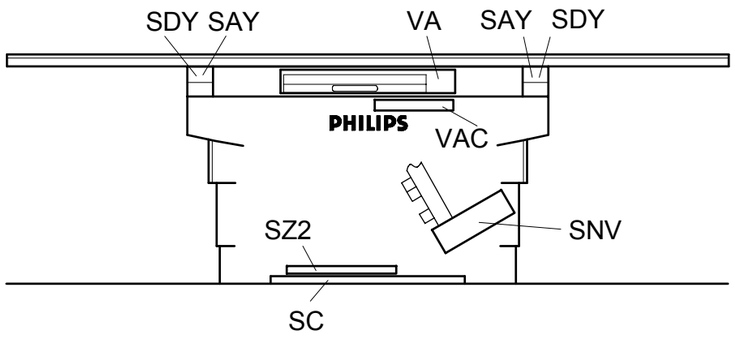
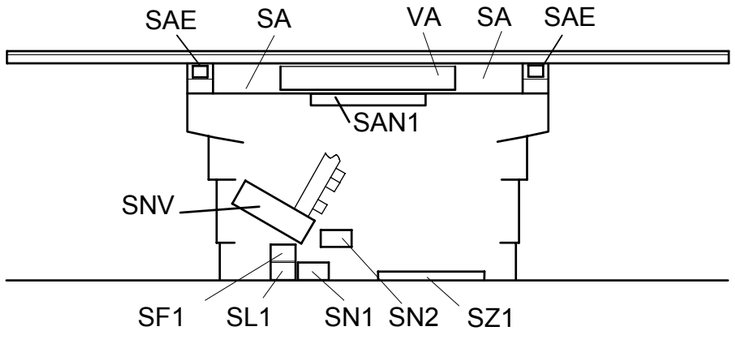
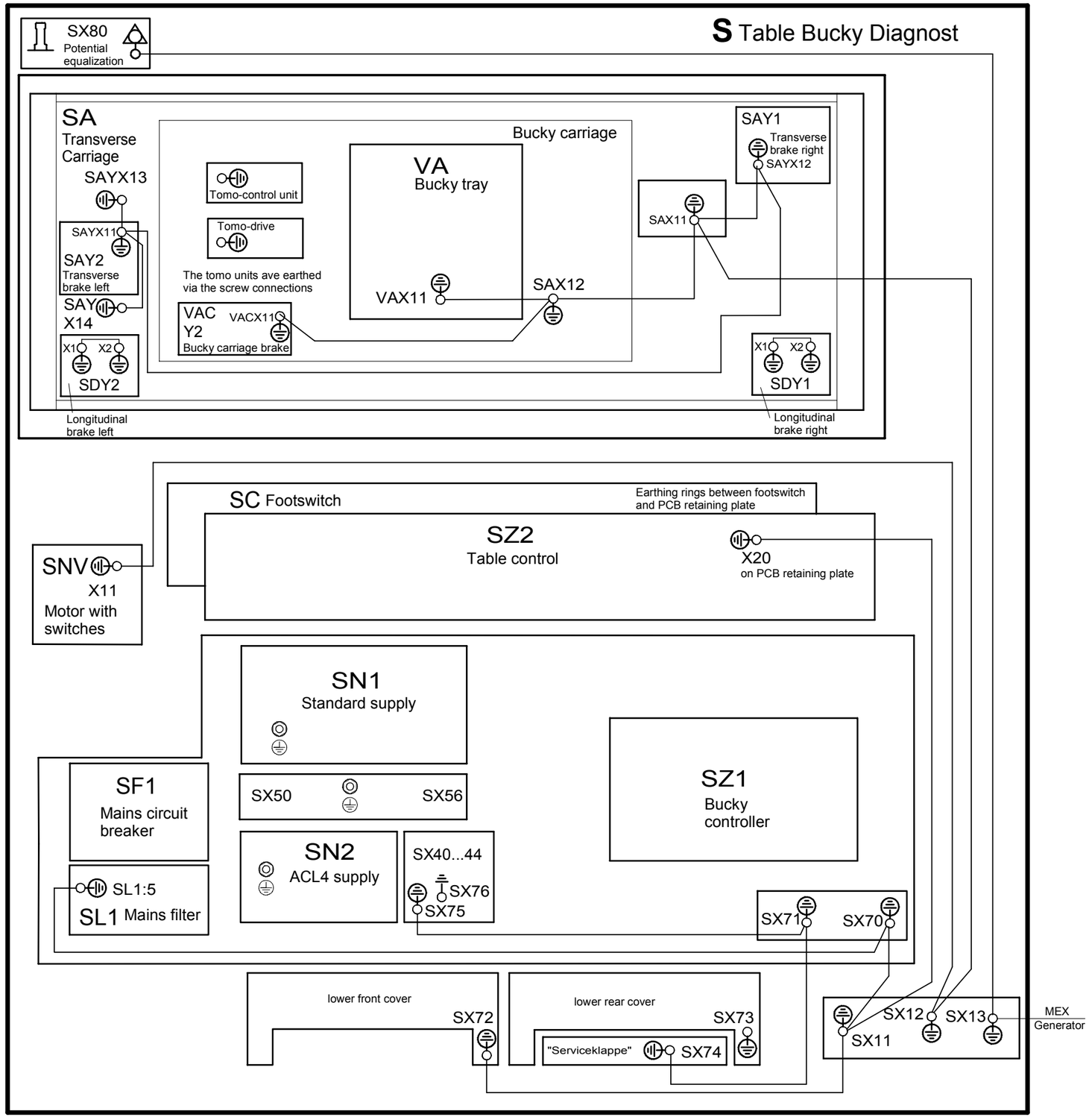
front view



rear view



Earthed via
screw point



BuckyDiagnost TH2
Earthing diagram

A2/A3 04-04-28 Schr.

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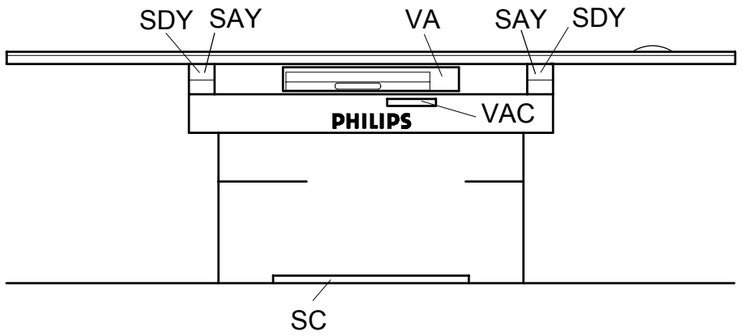
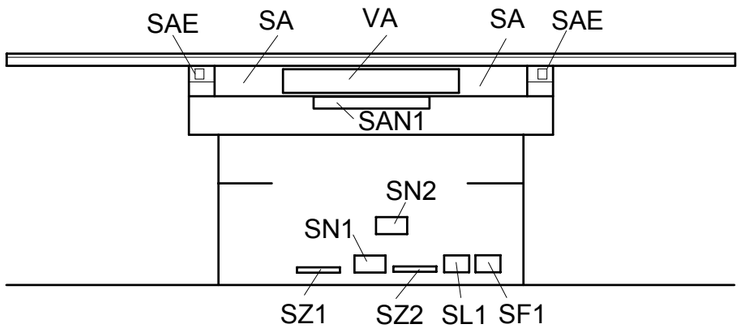
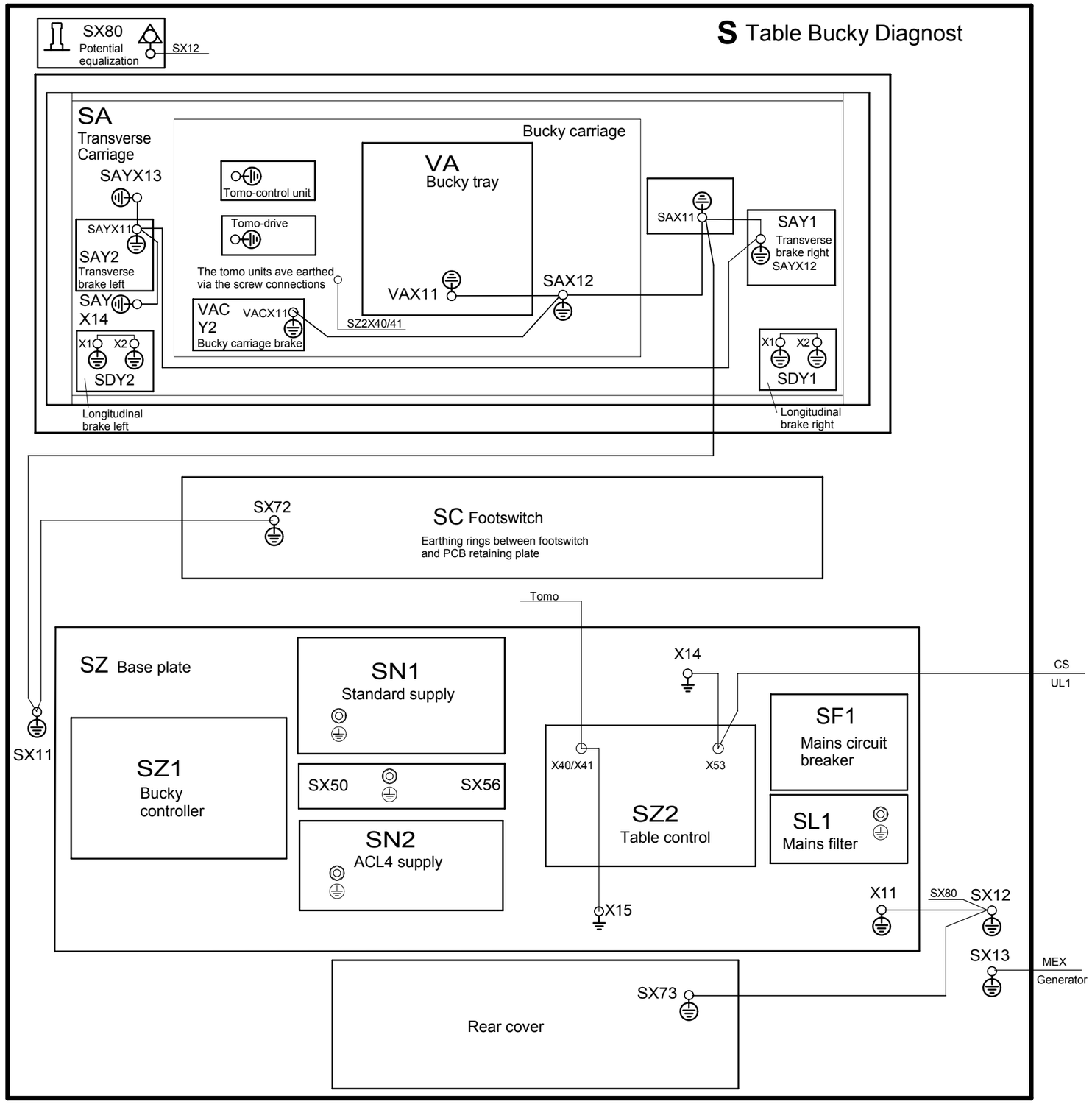
front view



rear view



Earthed via
screw point



BuckyDiagnost TF
Earthing diagram

A2/A3 04-04-28 Schr.

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